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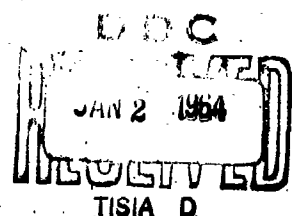
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SCIENTIFIC INFORMATION REPORT
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C-O-N-F-I-D-E-N-T-I-A-L

SCIENTIFIC INFORMATION REPORT

Chinese Science (39)

This serial report contains unevaluated information prepared as abstracts, extracts, summaries, and translations from recent publications of the Sino-Soviet Bloc.

Abstracts represents all articles except brief notes and news items from all available issues of the Acta Sinica series, consisting of 38 separate publications. A complete list of these is included (see Table of Contents). English, Russian, or Chinese abstracts are either given in their entirety or condensed and are so identified. Whenever no abstract accompanies the Chinese text, one is prepared for this report. Brief notes and news items are prepared in the form of summaries and extracts and are presented separately in this report.

Individual items are unclassified unless otherwise indicated.

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C-O-N-F-I-D-E-N-T-I-A-L

ABSTRACTS FROM ACTAS SINICA

Biological and Medical Sciences

HO Jui-jung (0149/3843/2837)
WANG Chih-an (3769/1807/1344)
YANG Yung-ling (2799/3057/3781)
CHANG Wan-yu (1728/5502/5148)
LIN Wen-shan (2651/2429/1472)

"Observations on the Cardiac Disturbances During Hypothermia"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1,
Mar 62, pp 1-6

Text of English Abstract: (1) The cardiac disturbances of a hypothermic dog under ether anaesthesia showed the following types: ventricular fibrillation and asystole or asystolic fibrillation. The mean terminal temperature of animals was $16.9 \pm 1.14^{\circ} \text{C}$. There was no correlation between the type of cardiac disturbance and the value of terminal temperature.

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 1-6)

(2) The hypothermic ventricular fibrillation of dog could completely prevented by systemic administration of hypertonic glucose solution, whereas hypertonic sucrose solution was ineffective in the regard. The (continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 1-6) mean terminal temperature of the experimental animal was not changed by the administration of either of these solutions. It was therefore suggested that glucose exerted a specific action on the hypothermic cardiac metabolism.

(3) Yohimbine, quinidien, and molar sodium lactate failed to prevent ventricular fibrillation under our experimental conditions.

(4) Administration of Procaine markedly reduced the incidence of hypothermic ventricular fibrillation, with a significant lowering of the mean terminal temperature to $12.3 \pm 1.13^{\circ} \text{C}$, perhaps owing to its trophic action on the cardiac muscle.

(5) On the basis of the aforementioned data, the concept that metabolic disturbances in cardiac muscle induced by hypothermia per se was the causative factor in the occurrence of ventricular fibrillation might be advanced.

C-O-N-F-I-D-E-N-T-I-A-L

C-O-N-F-I-D-E-N-T-I-A-L

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 1-6)
This paper was received for publication on 5 May 1960.

Authors' Affiliation: All of the Physiology Teaching and Research Section,
Hopeh Medical College, Shih-chia-chuang.

C-O-N-F-I-D-E-N-T-I-A-L

OU-yang Yen (2962/7122/3238)
LIN Chu-heng (2651/4376/1854)
CHU Wang-pao (2612/3769/5508) (deceased)

"Changes in Histamine Stimulated and Basal Secretions of the Stomach Following X-Irradiation of the Dog"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 7-14

Text of English Abstract: The experimental dogs were either provided with a gastric fistula or with an accessory gastric pouch for the collection of gastric juice. Basal secretion of the stomach and the gastric juice elicited by histamine injection or by the combined injections of histamine and atropine were determined with respect to the volumes of secretion, the acidity, and the enzymatic activity. Secretion volumes then were compared with those obtained after irradiation with 250 r of X-rays.

The basal secretions of the stomach have been collected from two dogs which under normal conditions secreted definite amounts of juice during of six-hour period. After irradiation, the secretion volume either immediately declined to subnormal levels or showed a rising phase before sinking below normal. One week later, the volume of secretions went up and gradually

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 7-14)
exceeded the normal values. The digestive power of the gastric juices was found in both dogs definitely increased and maintained on the high levels for several weeks. They gradually returned to normal through a period of more than five weeks.

Histamine-induced secretion of the gastric juice was collected at 30-minute intervals for a period of two hours. The amount of secretion was greatly diminished by the simultaneous administration of atropine. When the dogs were subjected to I-irradiation of 250 r, the gastric secretion in response to histamine injection was obviously reduced. Subsequently, the secretion volume may gradually return to normal through a period of fluctuations. The changes in acidity and in digestive power of gastric juice were inconspicuous or showed a decline at the initial stage of irradiation injury in some dogs.

Two dogs, when completely recovered from irradiation of 250 r., were given another dose of 650 r of gamma-rays. The animals ran the same course of irradiation sickness, but the degree of severity and the changes in gastric secretion were much less pronounced than those observed after the first dose.

This paper was received for publication on 9 May 1960.

C-O-N-F-I-D-E-N-T-I-A-L

OU-yang Yen (2962/7122/3238)
CHU Wang-pao (2612/3769/5508)

"The Effect of Total Body X-Irradiation of the Dog on the Gastric Secretion After Feeding"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 15-22

Text of English Abstract: Dogs bearing Heidenhain pouch and the pouch of lesser curvature were subjected to X-irradiation of 250 r. Before and after irradiation, secretions from the pouches were collected for six hours after feeding 100 g of beef, and the volume of secretion, the acidity, and the digestive power of the gastric juice thus obtained were determined. It was found that the secretory activity of these two kinds of gastric pouch in response to the same dose of X-irradiation was essentially different. During the first 10 days after irradiation, the secretory activity of the Heidenhain pouch showed a tendency of gradual increase. This became very marked in the next several weeks and the volume of secretion reached a maximum of 2-3 times that of the normal. Henceforth, secretions of the Heidenhain pouch diminished somewhat, but still maintained on a high level for a period of more than two months. Not until two and a half months later was the secretory activity of the Heidenhain pouch capable of recovering to its normal state.

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 15-22)
The acidity and the digestive power of the gastric juice which was collected from the Heidenhain pouch showed a common trend of changes. During the days immediately after irradiation, both acidity and digestive power suffered a little decrease, but soon rose up and maintained on the high levels for several weeks. Before recovery to its normal state, there were great fluctuations in acidity and in digestive power which lasted for about three months.

The results obtained from the pouch of the lesser curvature indicated a change to the contrary. During the first 10 days after irradiation, the secretion of the pouch suffered a great decrease. Further reduction in gastric secretion was observed up to the end of the first month. After that time, there was indication of an increase in secretion but the amounts of the gastric juice collected were still far below the normal level even at the end of the third month. The acidity and digestive power of the gastric juice also showed a drastic change in parallel with the volume of secretion. At about one week after irradiation it was practically devoid of free acid and enzymatic activity which did not recover during the course of observation of more than three months.

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(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 15-22)
From the results thus obtained, it may be inferred that irradiation of the dog causes an inhibition of the cephalic phase and a compensatory enhancement of the chemical phase of gastric secretion.

This paper was received for publication on 9 May 1960.

C-O-N-F-I-D-E-N-T-I-A-L

CHANG Yun-hsiang (1728,0061/4382)
TAI K'o-ming (2071/0344/2494)
CHU Wang-pao (2612/3769/5508)

"Sequence of Changes in Pancreatic Secretion Following Total Body Irradiation"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 24-27

Text of English Abstract: Four dogs were subjected to X-irradiation with sublethal dose of 250 r. Each animal was provided with a pancreatic fistula which was devised not only for the convenience of collecting pancreatic juice, but also for the local introduction of dilute HCl into the duodenum. We have observed the basal secretion of the pancreas and that elicited by the introduction of dilute HCl before and after X-irradiation. The quantities of secretions, as well as the contents of digestive enzymes, were determined under various conditions.

The basal secretion of the pancreas of the four irradiated dogs showed a decrease in two, an increase in one, and no apparent change in the other.

Daily fluctuation in quantity of pancreatic secretion was very conspicuous. This phenomenon may last as long as five months without complete recovery.

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 24-27)
Introduction of 10 ml dilute acid into the duodenum caused an increase secretion of the pancreas. After irradiation, all the dogs showed a tendency of decreased secretion of the pancreatic juice in response to acid stimulation, except one which showed a slight increase. Daily fluctuation in the volume of secretion was tremendous, which was far beyond the normal range of variations. The latent period of pancreatic secretion in response to acid stimulation was much prolonged after irradiation.

The digestive activity of the proteolytic enzymes in the basal pancreatic juice suffered a decrease in two dogs after irradiation. There was no obvious change observed in the other two dogs. Similar postirradiation changes in the activity of the proteolytic enzymes were observed in the pancreatic juice induced by the acid stimulation. The concentration of the pancreatic amylase in the basal secretion suffered a decrease in all of the cases after irradiation. But the total output of this enzyme was decreased in 3 and increased in one dog. The amylase in the acid-induced pancreatic juice showed similar changes after irradiation.

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(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 24-27)
In conclusion, it is apparent that the ionizing radiation caused in the main a decrease in the volume of pancreatic secretions, as well as in the activity of the digestive enzymes. The changes were phasic. During the course of recovery, secretory fluctuation of this organ was very marked and may last for several months.

This paper was received for publication on 9 May 1960.

C-O-N-F-I-D-E-N-T-I-A-L

CHIANG Chen-yu (3068/2182/5940)
CHANG Te-hsing (1728/1795/2502)

"Potentiation and Depression Effects of the Repetitive Cortical Stimulation on the Evoked Potential"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 29-34

Text of English Abstract: The effects of repetitive cortical stimulation on the evoked potential have been investigated in encephal isolate preparations of cats and in rabbits, anesthetized with a mixture of 1% chloralose and 10% urethane solution. The evoked potentials were recorded from the visual or auditory area of the cerebral cortex by an eight-channel electroencephalograph. Repetitive electric stimulation for three seconds was applied to a cortical point close to one of an array of the recording electrodes. Either depression or potentiation of the evoked potentials could be produced, depending on the depth of anesthesia and the stimulus parameters selected.

(1) The spreading depression. On strong stimulation, the evoked potential, after a latent period of half a minute, was severely depressed for about two minutes and then began to recover. Before finally returning to the original magnitude, the potentials might surpass the control size. The total recovery lasted for about thirty minutes. The degree of the

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 29-34)
augmentation of the potential seemed to depend on the level of the anesthesia. Changes in stimulus intensity and in depth of anesthesia, however, showed no effect on the process of depression. The depression propagated in all directions of the cortex at a speed of 2-8 mm per minute. No interhemispheric propagation was manifested. The initiation of the depression wave could be prevented by local application of 10% procaine solution at the stimulating electrodes.

The potentiation effect. Under certain conditions, the evoked potential could be greatly potentiated immediately after repetitive electric stimulation. Potentiation seemed to be confined only to the vicinity of the point stimulated and lasted for no more than forty seconds. A prerequisite for the production of the effect of potentiation was the proper frequency of stimuli; the anesthesia, the intensity, and the duration of the stimulating pulse were contributory factors.

Since the potentiation or depression could be induced separately by appropriate treatment of the preparation and by proper selection of stimulus parameters, it is assumed that the mechanism underlying the two effects are independent of each other.

This paper was received for publication on 25 September 1960.

Authors' Affiliation: Both of Institute of Physiology, Chinese Academy of Sciences, Shanghai.

C-O-N-F-I-D-E-N-T-I-A-L

IAN Shu-ch'eng (5663/2579/2052)

"An Observation on Phonation, Somatic Motor, and Other Responses Induced by Midbrain Stimulation of Birds in Waking State"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 36-41

Text of English Abstract: Phonation of birds was produced in waking and freely-moving conditions during electric stimulation of the tegmental reticular formation by means of implanted bipolar electrodes made of nichrome wire. The sound produced was of the same character as that observed in acute experiments previously observed by the author, but with greater intensity. The reaction was accompanied by withdrawing movements of the body and flushing the comb (in the cock), showing that both somatic and sympathetic systems were involved.

After the stimulation was over, the birds (cocks and ducks) looked sleepy for 2-3 minutes, after which they became more active in taking food during the transitional period from sleep to waking conditions.

Shifting the stimulating electrode to a more superficial position caused a change of the character of response. No more phonation was obtained, and the character of somatic response changed to a rolling movement, which had not been observed in acute experiments.

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 36-41)
This paper was received for publication on 27 September 1960.

Author's Affiliation" Physiology Section, Department of Biology, Kirin Normal University, Ch'ang-ch'un.

C-O-N-F-I-D-E-N-T-I-A-L

CHANG K'o-p'ang (1728/0344/1690)
CHANG Sheng-ken (4545/3932/5327)
CH'EN Hsiu-fang (7115/4423/5364)

"Laminar Distribution of Acid and Alkaline Phosphatase Activity in Various Areas of the Rabbit's Cerebral Cortex"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 42-48

Text of English Abstract: (1) The laminar distributions of acid and alkaline phosphatase in the visual, motor, and somatosensory cortices of the rabbit have been determined by quantitative microchemical methods.

(2) The patterns of laminar distribution of ACP and AKP in the visual, motor, and somatosensory areas have been found to be fundamentally similar to each other. The enzyme activity decreases as it goes from layer II-III down to the white matter. The peak of the activity seems to be located in layer II-IV. The enzyme activity of layer I is much higher than that of the layer VI and white matter.

(3) The laminar distribution of ACP and AKP in the cerebral cortex follows a similar pattern, although the absolute quantity of the AKP is much less than that of ACP in the same cortical layer.

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 42-48)

(4) The absolute level of acid phosphatase activity was found to be somewhat higher in the motor cortex than in the visual and somatosensory cortices.

This paper was received for publication on 14 October 1960.

Authors' Affiliation: All of Institute of Physiology, Chinese Academy of Sciences, Shanghai.

C-O-N-F-I-D-E-N-T-I-A-L

HSIAO Chun (5618/0193)

"The Effects of Intrapulmonary Pressure Changes on the Blood Pressure"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 49-57

Text of English Abstract: Experiments were carried out on dogs anaesthetized with pentobarbital sodium. A definite amount of air was injected into or drawn out from the lungs through a side branch of the trachea cannula in order to raise or lower the pressure in the lungs. The results obtained were as follows:

The increase of intrapulmonary pressure caused a fall, while its decrease caused a rise of arterial blood pressure. The blood pressure response was found to be partly due to mechanical influence from the respiratory movements and partly due to reflex action.

In curarized animals, the response decreased in magnitude after sectioning the pulmonary branches of the vagus nerve and decrease further after the cervical vagus trunk had been sectioned. When the respiratory center was selectively paralyzed by means of careful infusion of pentothal sodium, the blood pressure response diminished, eventually losing its reflex component when the vasomotor center had also been paralyzed. It is assumed

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 49-57) that the reflex component of the response consists of two stretchreceptors, arriving primarily at the respiratory center, and affecting the vasomotor center through irradiation; the other part is derived from impulses originating from the pressor receptors of other organs, presumably the great vessels of the thorax, which are conducted along fibers in the vagus trunk, regulating the function of the vasomotor center directly.

This paper was prepared under the direction of Prof HSU Feng-yen (1776/0028/1750).

This paper was received for publication on 17 October 1960.

Author Affiliation: Physiology Teaching and Research Section, Shanghai First Medical College.

C-O-N-F-I-D-E-N-T-I-A-L

HSIAO Chun (5618/1093)

"The Effects of Stimulation of the Lung Stretch Receptors on Respiratory Movements"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 58-62

Text of English Abstract: Experiments were carried out on dogs anaesthetized with pentobarbital sodium. By attaching a syringe on the side tube of the tracheal cannula, the lungs were artificially inflated or deflated and the resulting changes of respiratory movements observed.

Besides eliciting the familiar Hering-Breuer's reflex, the stretch stimulation of the lungs produced long-lasting effects on the respiratory movements: temporary deflation of the lungs produced prolonged increase of the respiratory movements, while inflation usually caused the opposite effects. The stimulating effects of lung deflation was especially evident in those animals whose respiratory center was depressed by narcotics or long experiment. Under such circumstances, lung deflation could initiate normal respiratory movements (Fig 3 and 4). The stimulating effect of lung deflation was not due to asphyxia and was abolished after vagotomy.

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 58-62)
In anaesthetized animals, temporary intermittent interapulmonary negative pressure provided by artificial respiration could stimulate natural respiration or improve depressed respiration and elevate blood pressure, while temporary intermittent interapulmonary positive pressure could depress natural respiration and lower blood pressure (Fig 5).

The significance of these results in resuscitation was discussed.

This paper was prepared under the direction of Prof HSU Feng-yen (1776/0028/1750).

This paper was received for publication on 9 November 1960.

Author's Affiliation: Physiology Teaching and Research Section, Shanghai First Medical College.

C-O-N-F-I-D-E-N-T-I-A-L

CHIANG Chen-yu (3068/2182/5940)
WANG T'ai-an (3769/3141/1344)
FU Ch'ing-shou (0265/1987/1108)

"The Effect of Total Occlusion of the Cephalic Afferent Circulation on the Cerebral Function in Deep Hypothermia"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 64-70

Text of English Abstract: The experiments were performed on the "isolated heads" of dogs prepared by the method of Benetato. The deep hypothermia of the brains was brought about by the selective cooling of the head with ice-water, and at the same time the body temperature was kept from falling by application of heat with hot water bags.

As a general practice, the cerebral circulation was arrested by clamping the common carotid arteries at the time when the brain temperature was lowered to 20°C and kept arrested for a desired length of time, while the cooling process went on until 15°C.

Of the nine animals experimented on, one survived the complete cerebral anoxia under hypothermia for 46 minutes, three for 60 minutes, and the others from 90 minutes. The electroencephalographic activities disappeared

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 64-70) soon after the total deprivation of blood supply of the brain, but started to return approximately 60 minutes after the cerebral circulation was re-established. Six hours later, the electrical activities of the brain recovered almost completely. Within one to two hours after the arterial release, the spontaneous respiration, the pupillary response, the palpebral reflex, and the corneal reflex all returned successively in that order.

From these observations it is concluded that the brain of the dog could survive a complete anoxia for as much as 90 minutes under the effect of cephalic hypothermia at the temperature of 15°C.

This paper was first reported in K'o-hsueh T'ung-pao, No 16, 1960, page 506.

This paper was received for publication on 19 April 1961.

Authors' Affiliation: All of Institute of Physiology, Chinese Academy of Sciences, Shanghai.

C-O-N-F-I-D-E-N-T-I-A-L

YU Tsung-han (0060/1350/3466)
HSU Ching-hua (1776/0079/5478)

"The Changes in Ammonia Content in Different Parts of the Rat Cerebral Hemispheres Induced by Sound Stimulation"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 72-77

Text of English Abstract: The ammonia contents of the auditory, visual, and somatic areas and area pyriformis of the rat cerebral hemispheres were determined after rapid freezing of the whole animal in a dry ice-acetone mixture following a certain period of weak of strong sound stimulation. The sound called "weak" was produced by an electric bell of 8 V in a cardboard box, which was put one meter away from the animal. The sound called "strong" was produced by the same bell but enclosed together with the animal in a galvanized iron drum about 46 cm in diameter.

The only change in the ammonia content during "weak" sound stimulation was localized in the auditory area. The ammonia content increased to a peak value about 40% above normal 5 sec after the start of continuous sound stimulation and returned to the normal level when the stimulation lasted longer than one min.

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 72-77)
The "strong" sound at first induced a rapid increase in ammonia content of the pyriform area, which reached a peak value about 50% above normal at the 1st sec. The increase in the auditory area was delayed, the peak appearing 60 sec after the start of stimulation and having a value 67% above the control level. The significance of these findings has been discussed.

The authors express thanks to Prof FENG Te-p'ei (7458/1795/1014), director of the Institute, for his concern and support.

This paper was received for publication on 5 May 1961.

Authors' Affiliation: Both of Institute of Physiology, Chinese Academy of Sciences, Shanghai.

HSU's present mailing address is Institute of Biochemistry, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

WU Wang-yuan (3019/2602/6678)
TU Huan-chi (2629/3562/1015)
CH'EN O (3088/6948)

"Experimental Referred Tender Spots on the Pinna of Monkey"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1,
Mar 62, pp 78-85

Text of English Abstract: Sustained nociceptive stimuli were applied to the hind limb of 8 monkeys (*Macaca mulatta*) in three ways: (1) fracturing the fibula; (2) applying a chemical irritant (ether extract or capsicum) to the sciatic nerve topically; (3) injecting hypertonic saline into the gastrocnemius and its adjacent subcutaneous tissues. All these methods were found to be capable of producing, on the surface of the pinnae, small discrete spots tender to pressure. The topographical distribution of the spots was not regular; but, statistically, they often appeared near the tip of the triangular fossa and the antitragus of the pinna. They began to appear from 40 minutes to several hours after the noxious treatment and persisted for a period from 3 days to a few months (7-10 days on the average). Intravenous injection of drugs known to suppress the activity of the reticular formation of the brain stem, such as chlorpromazine or nembutal, augmented the reaction to pressure and increased the number of spots. On the contrary, drugs, such as LSD₂₅, amphetamine, or adrenaline,

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 78-85)
which increase the excitability of the reticular formation suppressed the reaction to pressure and decreased the number of spots. In other experiments, procaine solution was injected into the third ventricle of the brain; 1-2 minutes after the injection, the referred tender spots disappeared and reappeared after 13-60 minutes. This fact suggests that the central mechanism concerned in the production of the referred tenderness involves neural structure or structures situated in the central portion of the rostral brain stem; and perhaps the mechanism is inhibited by impulses from the reticular formation, as indicated by the experiments of intravenous injection.

The authors express thanks to Prof FENG Te-p'ei (7458/1795/1014) for his guidance and to LI Ch'ang-ming (2621/7022/2494) for his participation in the work.

This paper was received for publication on 1 August 1961.

Authors' Affiliation: All of Institute of Physiology, Chinese Academy of Sciences, Shanghai.

C-O-N-F-I-D-E-N-T-I-A-L

LI Hsiao-yu (2621/2556/3768)
WANG Hsiao-lu (3769/1321/6424)
TING Kuang-sheng (0002/0342/3932)

"Studies on Antihypertensive Drugs-Effect of the Total Alkaloids From Rauwolfia Verticillata on Coronary Circulation of Dogs"

Peiping, Sheng-li Hsueh-pao (Acta Physiologica Sinica), Vol 25, No 1, Mar 62, pp 87-92

Text of English Abstract: Coronary blood flow was measured by bubble flow meter in 11 dogs anesthetized with chloralose. The blood pressure, coronary blood flow, and coronary vascular resistance were found to be (mean \pm s.d.): 83 \pm 13 mm Hg, 80 \pm 14 ml/100g myocardium/minute, and 1.06 \pm 0.28 mm Hg/(ml/100 g myocardium/minute), respectively. After an intravenous injection of 0.2 mg/kg of the total alkaloids from the root of Rauwolfia verticillata from Hainandao, the blood pressure lowered 30-40% from the original level, the coronary blood flow showed no significant change, and the coronary vascular resistance revealed a marked decrease. Injection of 0.1 mg of the alkaloids into the coronary artery did not bring about any noticeable effect. Thus the alkaloids appear to cause a dilatation of the coronary artery, which is considered to be beneficial to the hypertensive patients with coronary insufficiency.

(continuation of Sheng-li Hsueh-pao, Vol 25, No 1, Mar 62, pp 87-92)
The authors express thanks to the Institute of Materia Medica, Chinese Academy of Sciences, for the Rauwolfia Verticillata and the Total Alkaloids and to TS'AO Ts'ui-yu (2580/5050/3768) for his participation in the work.

This paper was received for publication on 12 September 1961.

Authors' Affiliation: All of Institute of Materia Medica, Chinese Academy of Sciences, Shanghai. LI is a graduate student at the Institute of Materia, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

CHU Li-chung (2612/7787/0022)

"Histological Observations on Aging Changes of the Thyroid Glands of Rats"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 169-178

Excerpts of English Abstract: The thyroid glands of ninety-one albino rats have been studied. Out of the twenty-three sensile rats, six of them show hyperplasia of connective tissues, while ten of them reveal various degrees of arteriosclerosis. Abnormal structures such as cystic follicles and adenoma-like hyperplasia are observed in 43 percent of the two-year-old rats. None of these abnormal structures has been discovered in the younger animals.

Prof WANG Huan-pao (3769/3562/5088) directed the research. Prof CHING Kuo-chang (6774/0948/4545) revised the manuscript. CHUNG Su-chuan (6945/4790/1227) assisted with the technical work. HUANG Kuo-p'ing (7806/0948/1456) aided in the photographic work.

This paper was received for publication on 9 January 1963.

Author's Affiliation: Institute of Zoology, Chinese Academy of Sciences.

CHU Hung-su (2612/1738/1788)

"On Morphological Characters of the Eggs of Noctuids, With Consideration of Their Applications in Taxonomic Work"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 179-183

Excerpts of English Abstract: The present paper deals with a morphological study of a total of 37 species of noctuid eggs, belonging to 26 genera and 8 subfamilies. Besides the egg form and size, there are a number of morphological characters of the egg shell under investigation. It is felt that unified technical terms for those characters are much needed. The definition of each term is given in the text. The course of development of the sculptures on the egg shell in *Leucania* separate Walker has been studied and illustrated.

Applying these morphological characters to the classification of noctuid eggs has revealed that the structures on the egg shell, especially the sculptures, may be used as diagnostic characters of species, but are not of much value in defining supraspecific categories. However, specific affinities are indicated by these morphological characters in a number of genera, such as *Heliothis*, *Anomis*, *Earias*, *Agrotis*, *Euxoa*, etc. Special

(continuation of Tung-wu Hsueh-pao, Vol, No 2, pp 179-183)
advantages are found in distinguishing *Heliothis armigera* and *H. assulta* by means of characters of the egg shell, as these two important agricultural insect pests are very difficult to be distinguished from each other by either adult or larval characters.

This paper was received for publication on 16 January 1963.

Author's Affiliation: Institute of Zoology, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

CH'EN Hsin-t'ao (7115/1800/7118)
HSU Ping-k'un (1776/4426/6924)
LIU Tzu-chen (0491/1311/3791)

"The Relationship Between the Temperature and the Development of the Eggs
of *Trombicula Akamushi* Var. *Deliensis*"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63,
pp 185-187

Excerpts of English Abstract: The results of the experiment indicate
that when relative humidity is 100 percent, a temperature of 23 degrees
centigrade is probably the most ideal for the development of the egg and
that within the range of 13 degrees centigrade and 35 degrees centigrade,
the higher the temperature, the shorter is the development period.

This paper was received for publication on 20 June 1962.

Authors' Affiliation: All of the Parasitology Teaching and Research
Section, Chung-shan Medical College, Canton.

C-O-N-F-I-D-E-N-T-I-A-L

HSU Kuo-chiang (1776/0948/3068)

"Injuries of Hypophthalmichthys Molitrix Embryos and Fry Caused by Cyclops"

Peiping, Tung-wu Hsueh-pao, (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 188-194

Excerpts of English Abstract: It is evident that cyclops are very injurious to Hypophthalmichthys embryos and fry. We should take care to put under control these minute crustaceans which are usually considered as fish bait; otherwise, we shall meet a great deal of difficulties in fish culturing. There is an intense struggle between these two parties from the very beginning. In the early embryonic states of the fish, the cyclops are always the victors. As soon as the fry attain an age of 5 days or more, the cyclops then become captives.

Ordinary ponds for fish culturing are full of these little crustaceans. It is, therefore, quite easy to understand why we have never got any fry in such ponds, even if the mature parent fishes spawn by chance.

CHU Hsi (2612/3156), deceased, and WANG Yu-lan (3769/1636/5695) directed this research. Prof CH'EN Chia-jui (3088/0857/3843) identified specimens.

(continuation of Tung-wu Hsueh-pao, Vol 15, No 2, pp 188-194)
This paper was received for publication on 25 September 1962.

Author's Affiliation: Institute of Experimental Biology, Chinese Academy of Sciences, Shanghai.

C-O-N-F-I-D-E-N-T-I-A-L

LIU I-jen (0491/0076/0088)

"On the Nocturnal Activities of Five Species of Mosquitoes"

Peiping, Tung-wu Hsueh-pao, (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 195-202

Excerpts of English Abstract: Observations on the nocturnal activities of *Culex tritaeniorhynchus* Biles. *C. vishna* Theobald, *C. whitmorei* (Giles), *C. fatigans* Wiedemann, and *Armigeres obturbans* (Walker) were carried out during July and August of 1959 in the Tungshan, Hupeh Province. Mosquitoes were collected at intervals from houses and cow sheds.

LI Yung-sheng (2621/3057/3932), director of the Institute of Parasitic Diseases, Hupeh Branch, Chinese Academy of Medical Sciences, directed this research. YUAN Hui-l'ang (5913/0590/1660), WEN Hsu-feng (3306/2485/1496), and HSU Po-chao (1776/0590/6856) assisted with the work.

This paper was received for publication on 6 January 1962.

Author's Affiliation: Institute of Parasitic Diseases, Hupeh Branch, Chinese Academy of Medical Sciences. Current affiliation -- Health and Epidemic Control Station, Hsiang-fan Shih, Hupeh Province.

LI Yung-hsin (2621/3057/2450)
LIU Hsi-yueh (0491/0823/1878)

"On the Breeding Behavior of the Pond Heron"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 203-210

Excerpts of English Abstract: This work was carried out from March to September 1960 at Tao-hua-ling, I-chang, Hupeh Province. The group of herons, about 150 pairs in number, was composed of three species, namely, Pond Heron (*Ardeola bacchus*), Night Heron (*Nycticorax nycticorax*), and Little Egret (*Egretta garzetta garzetta*), of which the first dominated.

This paper was received for publication on 7 November 1962.

Authors' Affiliation: Both of the Institute of Zoology, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

LIANG Ku-ch'iu (2733/9459/3808)
CHENG Che-min (6774/0772/3046)

"Note on a New Tapeworm *Hsuolepis Shensiensis* Sp. Nov. (Cestoda: Hymenolepididae) From Swine in Shensi Province, China, and a Revision of Genus *Hsuolepis* Yang, Zhai, and Chen, 1957"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63,
pp 211-216

Excerpts of English Abstract: A new species of tape worm, *Hsuolepis shensiensis* sp. nov., is reported from the swine in Shensi Province, Northwest China, and belongs to the family Hymenolepididae Railliet et Henry, 1909. Type specimens are deposited in the Department of Biology, Shensi Normal University, and in author's collection. In Kansu and Shensi provinces, Northwest China, the tapeworms of *Hsuolepis* genus are the usual habitants in swine.

Authors' Affiliation: Department of Biology, Shensi Normal University.

C-O-N-F-I-D-E-N-T-I-A-L

YIN Wen-chen (1438/2429/4176)

"A Preliminary Report on the Helminthes of Sheep and Goats From Peking,
With Description of a New Species"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63,
pp 217-226

Excerpts of English Abstract: The specimens for the present study were collected from the alimentary canal of sheep and goats in Peiping. Twenty-two species were obtained, of which 2 were found to belong to Cestoda, one to Trematoda, and 19 to Nematoda. Among the 19 species of Nematodes the species *Trichocephalus gazellae* found in the small intestine of a sheep is a new record to China, and the species *Ostertagia* (*O.*) *longispiculata* is new to science. The percentage of infection as observed is fairly high for *Bunostomum trigonocephalum*, *Gongylonema pulchrum*, *Haemonchus contortus*, *Oesophagostomum columbianum*, and *O. asperum*. Type specimens are deposited in the Institute of Zoology, Chinese Academy of Sciences, Peiping.

CH'EN Chia-jui (3088/0857/3843) corrected the manuscript. WU Shu-ch'ing (0702/3219/0615) directed the research. CHOU Ts'ai-ch'ung (0719/1752/8825) assisted with the work.

(continuation of Tung-wu Hsueh-pao, Vol 15, No 2, pp 217-226)
This paper was received for publication on 7 September 1962.

Author's Affiliation: Institute of Zoology, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

WU Shu-ch'ing (0702/3219/0615)
YIN Wen-chen (1438/2429/4176)
CH'EN Shou-hsun (3088/1343/6064)

"A Preliminary Report on the Lung Parasitic Nematodes in Chinese Domestic Animals"

Peiping, Tung-wu, Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 227-242

Text of English Abstract: The present paper deal with the faunistic studies on the parasitic nematodes collected from 9,434 lungs of the various domestic animals, including horses, cattle, sheep, goats, pigs, and camels at the different areas in China during 1956-1961. Among the material, 14 species of lung parasitic nematodes were found and determined as belonging to 3 families and 6 genera. In addition to *Muellerius capillaris* recorded previously from our country, this makes the total 15 species so far known in China. Among them, *Dictyocaulus cameli*, *D. arnfieldi*, *D. eckerti*, and *Cystocaulus* sp. are recorded for the first time from China.

While the species *D. eckerti* was found formerly in caribou, red deer, roe deer, and elk, as its hosts, it is now found in the goats of Chungking and Chengtu and the sheep of Kuming. Sheep and goats are found to be the new hosts of this nematode.

(continuation of Tung-wu Hsueh-pao, Vol 15, No 2, pp 227-242)
From the viewpoint of geographical distribution, *Dictyocaulus* is considered as the commonest genus of the lung parasitic nematodes in the Chinese domestic animals, and *Metastrongylus* and *Protostrongylus* rank the next.

CH'EN Chi-jui (3088/0857/3843) directed the research and corrected the manuscript.

This paper was received for publication on 3 September 1962.

Authors' Affiliation: All of the Institute of Zoology, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

LIN Chen-t'ao (2651/2182/3447)
LIU Yueh-ying (0491/2588/5391)

"Unionidae (Mollusca) of Bai-yang-dien, Hopeh Province, China"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63,
pp 243-245

Excerpts of English Abstract: The present paper deals with the fresh-water Pelecypoda - Family Unionidae, collected from Bai-yang-tien (a great lake in the central part of Hopeh Province). There are 15 species and five subspecies belonging to seven genera in two different subfamilies. These species are listed.

Profs SHIH Chang-hsi (1597/1728/3886) and CH'EN Chia-jui (3088/0857/3843) directed the research. CHANG Wen-chen (1728/2429/3791), Ting Li-shen (0002/4539/6500), and TU Shu-fei (0429/2885/5481) assisted in the research.

This paper was received for publication on 19 September 1962.

Authors' Affiliation: Both of the Institute of Zoology, Chinese Academy of Sciences. LIN is deceased.

CHIANG Hsien-chih (5592/3610/3112)

"Description of Two New Species of Chinese Fresh-water Cladocera With Notes on Four New Records"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63,
pp 255-261

Excerpts of English Abstract: This report deals with two new species and four new records of Cladocera collected from the various localities of China. The species Ceriodaphnia reticulata (Jurine), Moina irrasa Brehm, Moinadaphnia macleayi (King), and Eunops serricaudata (Daday) are for the first time recorded from China. The diagnoses of the two new species are given.

This paper was received for publication on 25 December 1962.

Author's Affiliation: Institute of Hydrobiology, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

CH'EN Chia-gui (3088/0857/3843)

CH'EN Yuan (7115/3850)

SUNG Ta-hsiang (1345/1129/4382)

"Notes on the Copepoda Fauna of Tsinghai Province, China"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63,
pp 263-271

Excerpts of English Abstract: The material dealt with in the paper was collected chiefly from the Tsinghai Lake (Kuknor) and its neighboring waters, including those at the upper reaches of the Yellow River, during the years 1959-1961, when a hydrobiological survey was conducted in Tsinghai Province by the Tsinghai Zoological Station of the Institute. Among the material, 12 species of Copepoda (4 species of Diaptomidae, 5 of Cyclopidae, one of Canthocamptidae, and 2 of Cletodidae) were found.

CHANG Hsa-yuan (1728/3353/0337), TING Li-shen (0002/4539/6500), and TS'AO Han-yu (2580/3352/2589) assisted in the collection work.

This paper was received for publication on 26 October 1962.

Authors' Affiliation: All of the Institute of Zoology, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

WANG Tun-ch'ing (3769/2415/3237)

"Descriptions of Male, Larva, Protonymph, and Deutonymph of *Iaelaps myonyssognathus* Grochovskaya et Nguyen-Xuan Hoe, 1961 with Remarks on Its Classification"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 273-278

Text of English Abstract: With regard to *Iaelaps myonyssognathus* Grochovskaya et Nguyen Xuan Hoe, 1961, only a single female was collected from *Rattus rattus flavipectus* in the Ta-sa district (Cao Bang Province) of [North] Vietnam during March-April, 1956.

Since 1958, we have collected several specimens of the female, male, protonymph, and deutonymph of this parasite from the same hosts, as well as from *Rattus losea exiguus*, *Rattus fulvescens* huang, and *Suncus murinus* (or their nests). Among the specimens collected, two females had been identified by A. A. Zemskaya as belonging to the same species of Vietnam.

This paper gives a morphological description of the larva, protonymph, deutonymph, and male of this species, together with some remarks on its classification.

(continuation of Tung-wu Hsueh-pao, Vol 15, No 2, pp 273-278)
Soviet specialist A. A. Zemskaya identified specimens. Dr CH'EN T'ien-pao (7115/1131/5580) assisted with the translation of Russian documents. LIAO Hao-jung (1675/3493/3310) and HUANG Chi-ch'i (7806/1323/3823) assisted in the collection and care of specimens and in preparing slides.

References: Of the ten references used, seven were in English and three were in Russian.

This paper was received for publication on 26 February 1962.

Authors' Affiliation: Fukien Research Institute of Epidemic Diseases.

C-O-N-F-I-D-E-N-T-I-A-L

CHENG Che-min (6774/0772/3046)
T'U Ch'in (1458/2953)
LIANG Ku-ch'au (2733/9459/3808)

"A New Species of the Genus *Sphingonotus* Fieb. From China (Orthoptera: Acrididae)"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 279-281

Excerpts of English Abstract: In the present paper, a new species of grasshopper, *Sphingonotus tsinlingensis*, is described. The types, as well as the paratypes, were all collected from the Tsinling range, Shensi, China.

HSIA K'ai-ling (1115/0418/7881) corrected the manuscript and offered invaluable views. YANG Lan-fen (2799/5695/5358) and CH'IU Ch'ung-hua (6726/825/5478) assisted in the field investigation work.

This paper was received for publication on 7 November 1962.

Authors' Affiliation: All of the Department of Biology, Shensi Normal University.

CHANG Feng-ying (1728/7685/3467)
LIAO Yu-lin (1675/3768/7792)

"On the Recent Stalked Crinoids of China"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 282-290

Excerpts of English Abstract: The Recent Stalked Crinoids of China have never been made the object of special investigation by zoologists. During the years 1958-1961, many specimens of this interesting group of animals were collected. By a careful study, they are found to belong to three distinct species, among which one species is considered to be new to science, whereas the other two species are for the first time recorded in China seas: (1) *Democrinus japonicus* T. Gislén; *Metacrinus rotundus* P. H. Carpenter; (3) *Metacrinus multisegmentatus* sp. nov.

SUNG Hua-chung (1345/5478/0022) made the photographs.

This paper was received for publication on 9 February 1963.

Authors' Affiliation: Both of the Institute of Oceanology, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

CHANG Ch'un-lin (1728/2504/7207)
CHANG Yu-ling (1728/3768/3781)

"New Species of the Genus *Gymnocypris* From Lake Tsing-hai"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63,
pp 291-295

Excerpts of Russian Abstracts: Two species of the fish genus *Gymnocypris*, obtained from Lake Tsinghai (Kukunor) in 1959, proved to be new to science. One of them was named *Gymnocypris chengi* in honor of Prof CHENG Tso-hsin, the famed ornithologist. The authors describe the physical characteristics of the two species: (a) *Gymnocypris chengi* sp. nov., which very closely resembles *Gymnocypris gasterolepidus* Herzestein morphologically, with the exception that it has fewer scales in front of the abdominal fin and 23 branchial filaments externally and 34 internally from *Gymnocypris przewalskii* Kessler in that the caranium is broad and simpler and the posterior part of the cranium is higher, and this species has 50 branchial filaments externally and 59 internally.

WANG Wen-pin (3769/2429/3453) also participated in this research. AO Jen-lan (2407/4711/5695) did the drawings.

(continuation of Tung-wu Hsueh-pao, Vol 15, No 2, pp 291-293)
This paper was received for publication on 7 November 1962.

Authors' Affiliation: Both of the Institute of Zoology, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

CHENG Tso-hsin (6774/0155/2450)
T'AN Yao-k'uang (6323/5069/0562)
MIN Chih-lan (7036/5347/5695)
LO Ch'uan-sheng (5012/3123/5463)

"Taxonomic Studies on Birds From Southwestern Szechwan and Northwestern Yunnan Part III. Passeriformes (Cont'd)"

Peiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63, pp 295-315

Excerpts of English Abstract: This is the third report of our investigation dealing with passerine birds from Southwestern Szechwan and Northwestern Yunnan. Families of Passeriformes treated in the present paper may be listed below:

(continuation of Tung-wu Hsueh-pao, Vol 15, No 2, pp 295-315)

Families	No of Species (subspecies)	Families	No of Species (subspecies)
1. Alaudidae	1	13. Troglodyidae	1
2. Hirundinidae	3	14. Prunellidae	3
3. Motacillidae	9 (3)	15. Paridae	10
4. Campephagidae	4 (1)	16. Sittidae	4
5. Rynonotidae	8 (4)	17. Certhiidae	2
6. Bambycillidae	1	18. Remizidae	1
7. Laniidae	5	19. Dicaeidae	3
8. Oriolidae	1 (1)	20. Nectariniidae	1
9. Dicruridae	3	21. Zosteropidae	2
10. Sturnidae	4	22. Ploceidae	4 (2)
11. Corvidae	10 (1)	23. Fringillidae	25
12. Cinclidae	2		107 (12)

The paper includes the following new records, as well as subspecies (*Passer rutilaus batangensis*) considered to be new to science.

C-O-N-F-I-D-E-N-T-I-A-L

(continuation of Tung-wu Hsueh-pao, Vol 15, No 2, pp 295-315)

- | | |
|--|---|
| 1. New record of subspecies to
China
<i>Motacilla flava angarensis</i> | 3. New records to Szechwan
(1) Species |
| 2. New record of species to
Southwestern China
<i>Pericrocotus brevirostris</i>
<i>Pycnonotus aurigaster</i>
<i>Acridotheres tristis</i>
<i>Sitta magna</i>
<i>Lonchura punctulata</i>
(2) Subspecies
<i>Alauda gulgula vernayi</i>
<i>Kitta whiteheadi</i> | 4. New records to Yunnan
(1) Species
<i>Delichon urbica</i>
<i>Carpodacus puniceus</i>
(2) Subspecies
<i>Microscelis leucocephalus</i>
<i>leucothorax</i> |

Results of stomach analysis of birds collected are appended at the end of the paper, which may be of use in making estimates concerning the probable relationships of the birds to agriculture and forestry.

This paper was received for publication on 22 June 1962. It is part of a report by the Comprehensive Expedition to Diver Rivers in Western Areas, Chinese Academy of Sciences.

(continuation of Tung-wu Hsueh-pao, Vol 15, No 2, pp 295-315)
Authors' Affiliation: CHENG and T'AN of the Institute of Zoology, Chinese Academy of Sciences; MIN, Biology Department, Northwest University, Sian; and LO, Biology Department, Southwest Normal College, Chungking.

C-O-N-F-I-D-E-N-T-I-A-L

CHENG Tso-hsin (6774/0155/2450)
T'AN Yao-k'uang (6223/5069/0562)
LIANG Chung-yu (2733/0022/1342)
CHANG Chun-fan (1728/0193/5400)

"Studies on Birds of Mount Omei and Their Vertical Distribution"

Feiping, Tung-wu Hsueh-pao (Acta Zoologica Sinica), Vol 15, No 2, Jun 63,
pp 317-334

Excerpts of English Abstract: Mount Omei, one of the most famed mountains of China, is situated at 103 degrees 20 feet E, 29 degrees 31 feet N, to the west of the Szechwan basin. Avifaunal surveys of the mountain were conducted by the Department of Biology, Szechwan University and the Institute of Zoology, Chinese Academy of Sciences, during July-August 1957, January-February 1958, July-August 1959, and March-July 1960. In the paper there are listed 256 species (with three subspecies in addition), belonging to 15 orders and 42 families, of which *Alcippe variegaticeps* is a new record to the South west region; whereas 9 other species (*Pernis ptilorhynchus*, *Accipiter trivirgatus*, *A. virgatus*, *Lophura nycthemera*, *Enicurus maculatus*, *Spelaeorhis chocolatinus*, *Actinodura souliei*, *Seicercus castaniceps*, *Niltava vivida*) are new to the avifauna of the Szechwan province.

(continuation of Tung-wu Hsueh-pao, Vol 15, No 2, pp 317-334)
WU Ta-chun (0702/1129/6874) participation in the field work.

This paper was received for publication on 11 October 1962.

Authors' Affiliation: CHENG and T'AN of the Institute of Zoology, Chinese Academy of Sciences; LIANG and CHANG of the Department of Biology, Szechwan University, Ch'eng-tu.

C-O-N-F-I-D-E-N-T-I-A-L

HSI Yu-jui (1598/5940/3843)
WANG Ken-fa (3769/2704/3127).
CH'EN Ting (7115/7844)

"Effects of 8-Hydroxyquinoline Sb Complex on the Cardiac and Liver Functions of Rabbits and the Absorption and Elimination of Antimony After Oral Administration"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 6, Jun 63, pp 323-326

Text of English Abstract: The effects of 8-Hydroxyquinoline Sb complex (8-hq. Sb) on the cardiac and liver functions of rabbits and the absorption and elimination of antimony were studied after oral administration in a 14-day course. Tartar emetic was studied simultaneously for comparison. 8-hq. Sb or tartar emetic was administered orally to rabbits. The animals were sacrificed at different time intervals, and the antimony levels in blood, liver, urine, and feces were determined by a modified Maren's method. Electrocardiograms and bromsulphlein tests were carried out before medication, on the 7th and 14th days during treatment, and also one week after cessation of medication.

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 6, pp 323-326)
Generally speaking, the absorption of antimony in rabbits is similar for both compounds. In the 8-hq. Sb group, the elimination of antimony in feces and urine during the course of administration amounts to 64 percent and 3 percent of the total antimony administered, respectively.

There is no significant change in EKG before and after the administration of 8-hq. Sb. On the other hand, the BSP test seems to indicate that 8-hq. Sb causes less damage to the liver than tartar emetic.

CH'EN Wei-chou (7115/4850/3166) assisted with electrocardiogram experiments.

This paper was received for publication on 18 April 1962.

Authors' Affiliation: All of Institute of Parasitology, Chinese Academy of Medical Sciences, Shanghai.

C-O-N-F-I-D-E-N-T-I-A-L

CH'E Hsi-p'ing (6508/6932/1627)

"Effect of Etaperazine (Perphenazine) and Aminazine on the behavior, Blood Pressure, and Body Temperature in Monkeys"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 6, Jun 63, pp328-333

Translation of Russian Abstract: Research was conducted on eight young monkeys (Hamadryad baboon). Motor activity of the animals was sharply reduced after internal introduction of etaperazine in doses of 0.04-0.16 mg/kg and aminazine in doses of 0.25-1.10 mg/kg. The animals became dull and apathetic, ceased playing and did not fear the experimenter. Their food and defensive conditioned reflexes disappeared. No hypnotic effect was noted. The animals remained in a wakeful state. The results were subjected to quantitative processing by a method using determination of the relative activity of the preparations. It was established that etaperazine is ten times more effective than aminazine in inhibiting behavior in monkeys. Dosages of the preparations (0.16 mg/kg of etaperazine and one mg/kg of aminazine) which evoke clear effects on behavior inhibition in monkeys produce different changes in the blood pressure and body temperature. Hypotensive and hypothermal effects were expressed only following the introduction of aminazine.

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 6, pp 328-333)
The author expresses thanks to Prof V. V. Zakusov, active member of the Academy of Medical Sciences USSR under whose direction these investigations were completed in the USSR toward the end of 1959. Prof SUN Kuochan (1327/0948/2823) reviewed this paper.

References: Of the 12 references listed, six were in Russian, four in English, one in Chinese, and one in German, dated 1952-1961.

This paper was received for publication on 17 August 1962.

Author's Affiliation: Pharmacology Teaching and Research Section, Sian Medical College.

C-O-N-F-I-D-E-N-T-I-A-L

CHU T'ien-hsi (2612/1131/6932)
WU Yun-i (0702/7189/5065)

"Studies on Antitumor Drug: 3. The Use of In Vitro Cultivation of Yoshida Ascites Sarcoma Cells in Screening Antitumor Substances"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 6, Jun 63, pp 334-343

Text of English Abstract: A simple and rapid method is described whereby short-term suspension culture of Yoshida ascites sarcoma cells may be used as a screening tool for antitumor substances. The tumor cells were cultivated in a medium consisting of horse serum and Hanks' balanced salt solution; sixty thousand to one hundred thousand cells per ml were carried out at 24 and 48 hours after addition of the drug, and the record of the effect of the drugs was graded mainly with reference to the percent inhibition of the tumor cells. In addition, cytomorphological changes were also noted as complementary criteria.

The response of this test system was assessed first by exposing it to five known antitumor agents, and it was observed that these compounds exhibited a varying antitumor activity against the cultured cells. In decreasing order of effectiveness, they were listed as follows: HN₂, nitromin, novoembichinum, myleran, and 6-mercaptopurine. Moreover, 117

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 6, pp 334-343)
drug preparations had been screened with this technique. The results indicated that 41.7 percent of the 24 synthetic compounds and 38.7 percent of the 93 extracts of natural medicines were found to be active. As regards the comparison of these in vitro results with the in vivo antitumor effects out that there was some, though not perfect animals, it was pointed out that there was some, though not perfect, correlation between these two biological test systems.

A discussion on the usefulness of this technique as a large-scale cancer chemotherapy screening procedure had been made, and its limitation were presented.

Prof CHIN Yin-ch'ang (6855/5593/2490) and Dr HAN Jui (7281/6904) corrected this paper; T'IENT Hung-chou (3944/3163/3166) conducted some of the experiments on the special nature of cell growth.

This paper was received for publication on 19 October 1962.

Authors' Affiliation: Both of Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping; WU, now at Institute of Materia Medica, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

LIANG Hsiao-t'ien (2733/2556/1131)
CHAO Chih-hai (6392/4249/0022)
YU Jun-hai (0060/3387/3189)
MO Jo-ying (5459/5387/3853)
CHEN Ming-oh'ih (7115/2494/3589)

"Synthetic Studies of Compound Related to Chlorothiazide"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 6,
Jun 63, pp 345-358

Text of English Abstract: 6-Chloro-7-sulfamyl-1,2,4-benzothiadiazine-1,1-dioxide (chlorothiazide) is an orally effective diuretic and is being employed for the treatment of hypertension. Many workers have reported the chemistry and pharmacology of this compound and its analogs. But the mechanism of the antihypertensive action has not been fully elucidated.

It seemed to be of interest to us to analyze the structural features conducive to diuretic and antihypertensive activities. Five types of compounds have been prepared for the purpose of studying the relationship between chemical structure and biological activities and of searching for a better antihypertensive agent. Physical data of these compounds were assembled in tables one to 12 in the Chinese text.

(continuation of Yao-hsueh-Hsueh-pao, Vol 10, No 6, pp 345-358)
Most of the compounds prepared were derived from 4-amino-6-chloro-1,3-benzene-disulfonamide, but compounds containing trifluoromethyl were also made. The intermediate disulfonamides were prepared by chlorosulfonation of m-chloroaniline with chlorosulfonic acid in large excess (occasionally with added phosphorus trichloride or sodium chloride), followed by treatment with ammonia or with simple aliphatic and aromatic amines. The sulfonamides were condensed with aldehydes and ketones to give substituted 1,2,4-benzothiadiazine-1,1-dioxide.

This paper was received for publication on 14 November 1962.

Authors' Affiliation: All of Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping; YU was formerly an instructor at the Department of Pharmacy, Mukden Pharmacy College.

C-O-N-F-I-D-E-N-T-I-A-L

LUANG Liang (7806/6852)
SHAO Kuo-hsien (6730/0948/6343)
SEU Yu-yuan (2631/3768/1254)
CHIANG Hsiang-chun (5592/3276/0689)

"Potential Anticancer Agents: 1. Synthesis of Derivatives of Glutamine and Related Compounds"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 6, Jun 63, pp 359-364

Text of English Abstract: Twenty-three glutamine derivatives (5-N-substituted amides and 5-alkylesters of phthalimido- α -aminoglutaric acid) were synthesized for anticancer and glutaminase inhibitory tests. These compounds were prepared from α -phthalimido-glutaric anhydride and appropriate amines and alcohols. The phthalyl group was removed by hydrolysis with aqueous hydrazine hydrate and sodium carbonate solution. Compound Ig shows significant inhibitory activity against S 180 and several other animal tumors, while compounds I₁, 2, 7-10 inhibit the activity of glutaminase. On the contrary, compounds of type II are inactive.

Most of the work for this paper was completed in 1959. Original analyses were made by the Department of Differential Calculus, Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping; biological experiments

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 6, pp 359-364) were done by the Department of Pharmacology, Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping; enzyme experiments were done by the Department of Biochemistry, Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping.

This paper was received for publication on 17 January 1963.

Authors' Affiliation: All of Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping.

C-O-N-F-I-D-E-N-T-I-A-L

CHANG Hai-tao (1728/3189/6670)
T'UNG Yu-i (4547/2034)
LOU Chih-ts'en (2869/0037/1478)

"Studies on the Chinese Species of Strychnos: 1. Strychnos Pierriana A. W. Hill"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 6, Jun 63, pp 365-370

Text of English Abstract: Strychnos pierriana A. W. Hill is one of the Strychnos species growing wild in the southern region of Yunnan Province. Detailed botanical descriptions of the plant, together with morphological and histological characters of the seed, are given with illustrations.

Paperchromatography of the alkaloidal extracts obtained from the seed, pericarp, stem, and leaf of the plant showed that all these parts contained strychnine and brucine. Assayed by the method of Chinese Pharmacopoeia 1953, the seeds contain 1.34 percent of strychnine, while the pericarp, stem, and leaf contain only about one tenth of it.

It is recommended that the seeds of Strychnos pierriana be used as a suitable raw material for the extraction of the alkaloid strychnine.

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 6, pp 365-370)
The authors express thanks to CHEN Hsueh-ying (2797/1331/5391) for his drawings.

This paper was received for publication on 25 December 1962.

Authors' Affiliation: All of Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping.

C-O-N-F-I-D-E-N-T-I-A-L

HUANG Ch'iao-shu (7806/0829/2579)
WANG Hsiang (3769/4382)
WANG Lung-lin (3076/7893/7792)

"Argentimetric Estimation of Cutisone"

Peiping, Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica), Vol 10, No 6,
Jun 63, pp 372-375

Text of English Abstract: A simple but rapid method for estimation of cutisone is proposed as follows:

Weigh accurately about 0.15-0.2 gram of cutisone, in a 100-milliliter beaker, and dissolve it in 30 milliliter of alcohol. Add 25 milliliters of 0.1 silver nitrate. Shake well and filter the precipitate through a buchner filter under reduced pressure. Wash the beaker and the precipitate with four 10-milliliter portions of distilled water. Acidify the filtrate with 5 milliliter of nitric acid. Add one milliliter of ferric ammonium sulfate indicator and titrate the excess of silver nitrate with 0.1 N ammonium thiocyanate. Carry out a blank determination using the same quantities of reagents but omitting cutisone.

(continuation of Yao-hsueh Hsueh-pao, Vol 10, No 6, pp 372-375)
The difference between two titration represents the quantity of silver nitrate used. Each milliliter of 0.1 N silver nitrate is equivalent to 0.01473 gram cutisone. The average deviation of the method is ± 0.5 percent.

This paper was received for publication on 8 August 1961.

Authors' Affiliation: Both of Tientsin Municipal Drug Control Laboratory.

Technical Sciences

CHIANG Tsu-hsiang (5592/4371/7449)

"Analysis of Folded Plate Structures by Slope-Deflection Method"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 5, 1963, pp 1-14

Translation of Chinese Abstract: The slope deflection method proposed in this article for the analysis of folded plate structures employs the shear moment distribution method and transverse computation. For a longitudinal computation, simultaneous equations are derived with either longitudinal stress or longitudinal strain by the combination methods proposed by Soviet Prof Fu-ra-so-fu [Chinese approximation of a Russian name]. The method proposed by the authors is suitable for the analysis of cross sections of folded plate structures with one or more slopes, as well as for circular cylindrical shells.

Author Affiliation: T'ung-ch University.

HSUEH Tsu-wei (5641/4371/5898)

"Antisymmetrical and Symmetrical Natural Vibrations of Parabolic Arches"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 5, pp 15-23

Excerpts of Chinese Abstract: A discussion is presented on the characteristics of natural frequencies and corresponding modes of vibration of double-hinged and triple-hinged parabolic arches. A method is shown for calculating antisymmetrical and symmetrical natural vibrations by means of graphical analysis and matrix theory.

Author's Affiliation: Scientific Research Institute of Bridge Engineering (Ch'iao-liang K'o-hsueh Yen-chin-so 2890/2735/4430/1331/2111/5890/4282/4496/2076), Ministry of Railways.

C-O-N-F-I-D-E-N-T-I-A-L

CH'EN Tsu-chi (7115/1350/1015)

"On Several Problems of Soil Mechanics and Rock Mechanics in China"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 5, 1963, pp 25-30

Abstract: The author presents his views concerning the major problems confronting China in the study of the mechanics of soils and rocks. The problems concern six areas as follows: structural breakdown of loess due to moisture absorption, problems of mud and soft clayey soils, soil rheology, soil dynamics, mechanics of rock, and physical chemistry of soils and mineralogy. The approach in future research is also discussed.

Among the author's list of references are 11 of his earlier works which were published between 1953 and 1961 in China and other countries in Dutch, Chinese, German, and English.

Author's Affiliation: Institute of Rock and Soil Mechanics, Chinese Academy of Sciences.

LIN P'ei-yuan (2651/1014/3293)
T'EN Mei-ling (3944/5019/3781)

"Conditions of Similitude for Model Tests of Underground Structures"

Peiping, T'u-mu King-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 5, 1963, pp 31-37

Abstract: This paper discusses stress-strain relationships in model testing of underground structures under various conditions, such as when model and actual structure differ in size and modulus of elasticity but are made of identical materials, when model and actual structures are identical in modulus of elasticity but differ in size and materials, and when model and actual structure are identical in all three parameters. The derivations of formulas are shown.

Authors' Affiliation: Research Institute of Railway Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

HU Kuo-ping (5170/0948/3521)

"On Operating Principle of Aeration Tanks and Methods of Calculation"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 5, 1963, pp 38-46

Abstract: This article presents a detailed discussion of the operating principles of an aeration tank such as is used in the biochemical treatment of municipal sewage and factors which influence the efficiency of the system. An analysis is made of four methods of computation which have been introduced in China. These are: K. N. Korol'kov's first set of formulas, K. N. Korol'kov's second set of formulas, H. A. Bozyakina's formulas, and the set of formulas proposed by the Soviet Academy of Municipal Services. The last mentioned is actually an expansion of Bozyakina's method. The limitations of these methods are pointed out. Finally, the author considers the nature of contaminants, the oxygen consumption curves, and other significant factors and presents the following original formulas for reference in the design of aeration tanks:
and

Author's Affiliation: Institute of Municipal Engineering of the Research Institute of Architecture and Construction, Ministry of Building.

YEH Kuo-cheng (0673/0948/6927)

"On the Strength of Asphalt Concrete Paving"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 5, 1963, pp 47-50

Abstract: This paper establishes new strength requirements for asphalt concrete paving as dictated by the quantity and quality of motor vehicular traffic in some southern cities of China.

Author's Affiliation: Hu-nan University.

C-O-N-F-I-D-E-N-T-I-A-L

TING Ta-chun (0002/1129/6874)

"Quick Design Methods for Open Cylindrical Reinforced Concrete Tanks"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 5, 1963, pp 51-54

Abstract: The author presents formulas for the calculation of internal stresses of open cylindrical reinforced concrete tanks and demonstrates their use in an actual design problem.

Author's Affiliation: Nanking Engineering College.

CHU Po-lung (2612/0130/7893)

CHIANG Ta-hua (5592/1129/7520)

IUNG Chien-ch'ang (7893/1696/2490)

IU Ch'iu (7120/2825)

"Discussions on 'The Calculation of the Strength of Reinforced Concrete Beams Under the Combined Action of Shear and Bending' (Parts 1, 2, 3, and 4)"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 5, 1963, pp 55-62

Abstract: Four separate notes, each by one of the authors listed above, points out alleged discrepancies in a paper by WU Liu-sheng (0702/2692/3932) and SHIH Lan-ch'ing (2457/1526/7230), which was published in the Volume 8, No 3, 1962, issue of source. Proposed corrections are supported by lists of references.

Authors' Affiliation: CHU, CHIANG, and IU, all of T'ung-chi University; IUNG, of the Institute of Engineering Mechanics, Chinese Academy of Sciences.

C-O-N-F-I-D-E-N-T-I-A-L

WU Liu-sheng (0702/2692/3932)
SHIH Ian-ch'ing (2457/1526/7230)

"Replies to 'Discussions on the Calculation of the Strength of Reinforced Concrete Beams Under the Combined Action of Shear and Bending'"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 5, 1963, pp 63-64

Abstract: In this paper, the authors reply to criticisms of their previous paper, accepting some of the corrections proposed while rejecting others and defending their previous theories.

Authors' Affiliation: Tsinghua University.

CHANG Fu-fan (1728/4395/5400)

"Stress Analysis of Prefabricated Load-Bearing Wall boards"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 4, 1963, pp 1-12

Abstract: This article presents a method of stress analysis applicable to prefabricated wall boards. The method is based on biharmonic equations, as well as on the theory of minimal deformation. It satisfies conditions for simultaneous displacement at every point of contact between wallboard and frame.

The following persons collaborated on the work reported in this paper: CHIANG Chih-hsing (5592/2535/5046), KU Ch'iu-lin (7357/3061/2651), YANG Chen-ch'ang (2799/2182/2490), and CHAO Hsing-hua (6392/5281/5478). All are of the Mechanics of Materials Teaching and Research Section, [Tsinghua University].

Author's Affiliation: Tsinghua University.

C-O-N-F-I-D-E-N-T-I-A-L

CHANG Fu-fan (1728/4395/5400)

"Stress Analysis of Prefabricated Load-Bearing Wallboards"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 4, 1963, pp 1-12

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The following persons collaborated on the work reported in this paper: CHIANG Chih-hsiang (5592/2535/5046), KU Ch'iu-lin (7357/3061/2651), YANG Chen-ch'ang (2799/2182/2490), and CHAO Hsing-hua (6392/5281/5478). All are of the Mechanics of Materials Teaching and Research Section, [Tsinghua University].

Author's Affiliation: Tsinghua University.

TUNG Ya-pin (5516/7161/2430)

"On the Shearing Strength of Reinforced Concrete Members in Flexure"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 4, 1963, pp 13-21

Abstract: In this paper, empirical formulas are derived from Chinese and foreign research data for calculating the shear and bending strengths of reinforced concrete members in flexure. The accuracy of the formulas are checked against experimental data. The formulas are applicable to members with loads concentrated at one or two points. A discussion is given on principal factors in the fatigue of reinforced concrete members, are special problems which should be considered in design.

The author thanks Prof CHAO Kuo-fan (6392/0948/5672), PI Chia-chu (3968/1267/4554), and WU shih-ying (0702/0013/5391) for reading his manuscript.

Author's Affiliation: Research Institute of Metallurgy and Construction, Pao-t'ou Iron and Steel Works.

C-O-N-F-I-D-E-N-T-I-A-L

WU Shih-ying (0702/0013/5391)

"Calculation of the Shearing Strength of Reinforced Concrete Members in Flexure"

Peiping, T'iu-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 4, pp 22-28, 21

Abstract: This paper presents a method, based on Chinese and foreign experimental data, for the analysis of shear strengths and bending moments of reinforced concrete members in flexure under the action of external loading. The formulas used have been simplified by neglecting coefficients of material homogeneity, overloading, etc. The accuracy and limitations of the method are discussed. The author points out that various methods which had been published, including that set forth in the Soviet Code (Ni Tu 123-55), do not correctly reflect shear strength.

The author thanks the following persons for their help and for checking his manuscript: Prof CHAO Kuo-fan (6392/-948/5672); CHANG Shen-yu (1728/1957/0151), and engineer; and PI Chia-chu (3968/1367/4554).

The most recent bibliographic citation is dated 1962.

Author's Affiliation: Research Institute of Metallurgy and Construction, Pao-t'ou Iron and Steel Works.

C-O-N-F-I-D-E-N-T-I-A-L

CH'EN Hui-k'ang (7115/1920/1660)
HSU Hui-ling (6079/1920/0109)

"A Study of Natural Foundations in the Shanghai Area Based on Calculation of Ultimate Strain"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 4, 1963, pp 29-34

Abstract: The author states that the most advanced design method for foundations is based on the analysis of ultimate strain. In the field of soil mechanics, many methods have been devised for estimating the strain of soil foundations, and many ultimate strain values have been determined. However, all are based on unique soil conditions and other assumptions and do not apply to the natural foundations of the highly compressed, muddy clay soil found in most parts of Shanghai. In 1956, a study was initiated of the settlement of different types of buildings and structures in Shanghai. The author has analyzed the research data on 72 of those buildings and structures and presents in his paper a method of computation applicable to Shanghai.

(continuation of T'u-mu Kung-ch'eng Hsueh-pao, Vol 9, No 4, 1963, pp 29-34)
Credit is attributed to the following persons and organizations for help with this paper: SHIH Li-hsiang (2545/1462/4382) for checking their manuscript; YU T'iao-mei (0358/6148/2734), SUN Keng-sheng (1327/2577/3932), and HSU Wei-yang (6079/1919/2799), for guidance; Hydrographic Geology and Engineering Geology Sections of the Ministry of Geology; Footings and Foundations Research Laboratory of the Fifth China Industrial Construction Design Institute; T'ung-chi University; Shanghai City-Planning Building Design Institute; and Shanghai Coal Mine Design Institute for doing the mathematical work.

Authors' Affiliation: Both of the Hydrographic and Engineering Geology Sections of the Ministry of Geology.

C-O-N-F-I-D-E-N-T-I-A-L

WANG Ch'i-cho (3769/0796/3625)
CH'IN Ken-su (4440/2704/4395)
YEN Tsung-chieh (0917/1350/0267)
CHIN Chih-chun (6855/6347/4689)
CHANG Shen-yu (1728/1957/0151)
CHANG Shu-p'ing (1728/2885/1627)

"Discussion on 'On the Cracks and Strengthening of Thin-Webbed Tee Beams
(Serial No G-109) in the Collection of Standard Designs'"

Peiping, T'u-mu Kung-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering), Vol 9, No 4, 1963, pp 35-38

Abstract: Reference is made to a paper by T'AO Wen-chung (7118/2429/0022), dated and source of publication unspecified. Many errors in theory and computation are pointed out and corrected.

Authors' Affiliation: WANG, CH'IN, and YEN of the Shanghai Mining Machinery Design Institute; CHIN of Shantung Provincial Construction Company No 2; CHANG and CHANG, both of the Building and Construction Research Institute of the Ministry of Metallurgical Industry.

C-O-N-F-I-D-E-N-T-I-A-L

ORGANIZATIONS AND CONFERENCES

1. Nationwide Tuberculosis Conference Held in Shanghai

From 27 May to 3 June 1963, the Chinese Tuberculosis Society and the Tuberculosis Society of the Chinese Medical Association held a joint 1963 Nationwide Tuberculosis Science Conference in Shanghai. Eighty representatives from research organizations, medical schools, and tuberculosis prevention and control organizations of 28 provinces, municipalities, and special districts participated in the conference. CH'EN Hsin-chung (6929/0207/1813), Vice-Minister of the Ministry of Public Health, participated in the conference. HUANG Ting-ch'en (7806/7844/5256), Director of Chinese Medical Association and Director of the Chinese Tuberculosis Society, directed the conference.

The goals of this conference were: exchange past experiences; inspect the results of scientific research and development of the past several years work; obtain information on pertinent tuberculosis questions, tubercular drug treatment, basic research, and other methods; and, on the basis of the summation of past experiences, bring up opinions of plans for important problems which would thus cause tuberculosis work throughout the country to advance step-by-step to order and agreement in tuberculosis work.

(continued)

Of the 422 papers submitted at the conference, 71 were on preventive measures, 287 on clinical phases, and 64 on basic phases. Of the 422 papers submitted, 19 were read at the conference itself and 57 were read at seminars. Dr WU Shao-ch'ing (0702/4801/7230) gave an academic report entitled "Progress and Prospects of Chemical Treatment of Tuberculosis in the Past Few Years." (Peiping, Chung-kuo Fang-lao Tsa-chih [Chinese Journal of Tuberculosis Prevention], Vol 4, No 2, 30 Jun 63, p 64)
(CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

2. Tientsin Municipal Tuberculosis Society Opens 1962 Conference

In February 1963, the Tientsin Tuberculosis Society organized its yearly activities. The conference lasted for three days with over 500 persons in attendance. In addition to physicians and personnel from the hospitals of Tientsin, 18 delegations from other districts attended the conference. Nine papers were read at the conference, of which some were discussed in full. (Peiping, Chung-kuo Fang-lao Tsa-chih [Chinese Journal of Tuberculosis Prevention], Vol 4, No 2, 30 Jun 63, p 106) (CONFIDENTIAL)

3. Seminar on Tuberculosis Prevention and Control

From 20 April to 23 April 1963, the Kwangtung Provincial Seminar on Prevention and Control of Tuberculosis was held in Canton. More than 20 special cadres of Public Health Bureaus, numerous specialists, doctors, and administrative personnel from provincial and municipal tuberculosis organizations attended. The Kwangtung Provincial Institute of Tuberculosis Prevention and Control gave a report on tuberculosis prevention and control work done in the past three years, future missions, and B. C. G. (Bacillus Calmetteguerin) inoculations. (Peiping, Chung-kuo Fang-lao Tsa-chih [Chinese Journal on Tuberculosis Prevention], Vol 4, No 2, 30 Jun 63, p 87) (CONFIDENTIAL)

4. Anhwei Province Tuberculosis Conference

On 11 April 1963, the Preparatory Committee of the Anhwei Tuberculosis Society and the Tuberculosis Branch of the Anhwei Medical Association opened a three-day Tuberculosis Science Conference in Hsuei. Seventeen papers were read at the conference. The conference was held under the leadership of the Anhwei Provincial Scientific and Technological Association and the Institute of Medicine. Thirty-seven units from hospitals, special municipalities, and industrial and mining areas attended. More than 60 doctors and specialized nurses on tuberculosis from hsien hospitals attended. (Peiping, Chung-kuo Fang-lao Tsa-chih [Chinese Journal of Tuberculosis Prevention], Vol 4, No 2, 30 Jun 63, p 75) (CONFIDENTIAL)

5. Activities of Tuberculosis Society

The Tuberculosis Society of the Shantung Provincial Medicine, Pharmacology, and Public Health Society has made specific arrangements for science activities for the balance of the year 1963. It has been decided that each month members will hold some type of scientific activity. Scheduled for these activities are a case-discussion conference and a science-report conference. The society has issued a report which includes the following: occupational tuberculosis, pneumomycosis, application of common practices in tuberculosis in small children, parasitic diseases of the lung, etc. (Peiping, Chung-kuo Fang-lao Tsa-chih [Chinese Journal of Tuberculosis Prevention], Vol 4, No 2, 30 Jun 63, p 96) (CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

6. Drug Manufacturing Conference

A national conference on quality control in drug manufacturing sponsored by the Ministry of Chemical Industry was held on 5-21 June in Shanghai. It was attended by more than 270 persons from chemical and industrial departments, drug manufacturing and research units, and health and commerce departments. (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 5, Aug 63, p 237) (CONFIDENTIAL)

7. Cartographic Meeting

From 18 to 27 July 1963, a meeting of cartographers from Southwest China was held in Peiping. Some 50 persons attended this meeting, at which time reports were made and experiences were exchanged on cartographic work. Besides comparing maps and data of the Chungking and Kunming areas, new procedures for map boundaries were established.

At this meeting, many problems were taken up and resolved in connection with the making of geological and tectonic maps of Southwest China. Moreover, suggestions were made to set up certain standards for compiling maps of mining and mineral deposit areas. (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 8, 10 Aug 63, p 33) (CONFIDENTIAL)

8. Shantung Geological Society

Recently, the Shantung Geological Society held a special meeting in Tai-an to discuss the subjects pertaining to metamorphic rocks. At this meeting, 18 manuscripts were read which mainly dealt with field observations and office studies of various profile sections of the Yen-ling (range) of the T'ai-shan Mountains.

The main address was delivered by CH'ENG Yu-ch'i (4453/5940/3217), vice-president of the Research Academy of Geology (Ti-chih-ko-hsueh-yen-chiu-yuan) [of the Ministry of Geology], who spoke on methods of conducting local studies of metamorphic rocks.

As a result of this meeting, a clearer understanding was reached on the subject of composition of stratified rocks and the initial formation of rocks in the T'ai-shan Mountains of Shantung Province. (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 8, 10 Oct 63, p 33) (CONFIDENTIAL)

9. Joint Conference on Geology

In July 1963, the Work Planning Committee of the Ministry of Geology and the State Statistical Bureau (Kuo-chia T'ung-chi Chu) held a joint meeting to discuss matters pertaining to statistical data on geology. This conference lasted 14 days during which the conveners seriously discussed matters concerning the "Provisional Regulations for Statistical Work" and "Regulations for Work Planning" as announced by the State Council and State Planning Commission, respectively. On research, they also reviewed the "Regulations of Ministry of Geology for Work Planning" and discussed how the Ministry of Geology can completely handle some of the regulatory problems in work planning as set forth by the State Council, and so forth...and, finally, how to conduct a study of the 1963 Plan for Geological Work. (Peiping, Chung-kuo Ti-chih [Chinese Geology], No 8, 10 Aug 63, p 33) (CONFIDENTIAL)

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10. Geodetic and Cartographic Society Established

Recently, a conference was held to establish the Kwangtung Provincial Geodetic and Cartographic Society (Kuang-tung Sheng Ts'e-hui Hsueh-hui [1684/2639/4164/3261/4940/1331/2585]). A total of 13 papers and reports was submitted at this conference. To begin activities for personnel associated with various specialized fields, the society individually established the four specialized departments of astronomical geodesy, aerial surveying of topography, construction surveying, and cartography. (Canton, Chung-kuo Hsin-wen, 28 Oct 63, p 9)

11. Chinese Machine Processing Society Established

Recently, the Chinese Mechanical Engineering Society opened a meeting to establish the Chinese Machine Processing Society (Chung-kuo Chi-hsieh Chia-jung Hsueh-hui 0022/0948/2894/2750/0502/1562/1331/2585). Delegates at the conference discussed 50 scientific papers from the 244 that were submitted.

HOU Chen-ping (0186/6966/0393), Harbin Polytechnical University, LIU Ch'eng-i (0491/2110/3015), Chinese Academy of Sciences, and other submitted papers on grinding burns and surface quality. Papers pertaining to the field of machine tooling were also submitted. (Peiping, Jen-min Jih-pao, 6 Nov 63, p 2)

12. Tsinghai Province Civil Engineering Society Established

On 14 February 1963, the executive councils of the Provincial Science Society and the Provincial Civil Engineering Society announced their decision to officially establish the Tsinghai Province Civil Engineering Society. On 19 February 1963, the Tsinghai Province Civil Engineering Society opened the first meeting of the first preparatory committee. At this meeting, a complete discussion on the plans for science activities in 1963 was carried out under the direction of Civil Engineer TS'UI Ch'un-jung (1508/2504/2837). (Peiping, T'u-mu Kung-ch'eng Hsueh-pao [Chinese Journal of Civil Engineering], Vol 9, No 2, Feb 63, p 42)

13. Conference on Parasitic Diseases in Domestic Animals

The first nationwide conference on research work of parasitic diseases in animals was recently held in Lanchow. At the meeting, the conference personnel discussed research trends of parasitic diseases in domestic animals and exchanged experiences and results of research work done on parasitic diseases in domestic animals in our country since 1949.

The conference presented data and prevention and curing phases that are important in treating parasitic diseases in domestic animals in our country. Science workers have successfully experimented with many drugs for the prevention and curing of parasitic diseases. Some of the useful drugs are already in production. This article mentions the insecticides Ti-pai-ch'ung (a general insecticide) and 666. (Peiping, Jen-min Jih-pao, 6 Nov 63, p 2)

14. Stomatology Conference Held in Ch'eng-tu

A nationwide stomatology conference was held recently in Ch'eng-tu. The most important problem under discussion at the conference was the treatment of parodontitis and dental caries. According to papers and materials received at the conference, our country's stomatologists have developed research in the past few years on the etiology of dental caries, mechanisms of pathogenesis, and the relationship of fluorides on dental caries. As to treatment of parodontitis, stomatologists in our country have promoted systematic research of pathological histology and have constructed experimental models of parodontitis disease in the bodies of animals. Stomatologists have promoted clinical biochemical research on parodontitis patients. (Peiping, Kuang-ming Jih-pao, 8 Nov 63, p 1)

15. Chinese Academy of Sciences Holds Fourth Polymer Conference

The Fourth Polymer Conference of the Chinese Academy of Sciences was held on 1-7 November 1963 in Ch'eng-tu. It was sponsored jointly by the Southwest Branch of the Chinese Academy of Sciences and the Institute of Chemistry of the Chinese Academy of Sciences. The conference was attended by 93 official delegates and more than 200 observers and visitors representing 42 organizations.

More than 170 papers were submitted at the conference. Six comprehensive reports were read at the general assembly, and 90 were read at group sessions.

The conference was convened by Southwest Branch Academy Director LIU (6491). The first paper to be read to the general assembly, "Statistical Theory on Fission Reaction," summarized reference works dealing with the methods of three theories on high polymer fission and introduced the author's new method for handling fission reaction. The essential content of his treatment of high polymer fission was approached through mathematics; and on this basis, he made use of statistical theory to treat of the high polymer fission reaction of arbitrary distribution. Besides this, there were five other comprehensive reports: (1) "Certain Theoretical Problems in the Process Molding of Thermo-plastics," (2) "On Problems of the Binding Length of Binders," (3) "High Polymer Solid State Reaction Dynamics," (4) "The Structure of Isotactic Polymers," and (5) "Research on Phenolic Resins in Recent Years."

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In the group session, papers were read on the following subjects: free radical polymers, ionic polymers, directed polymers, graft polymers, reaction of condensation polymerization, border condensation polymers, organic silicon polymerization and high polymers, elemental high polymers, ion exchange resins, radiation effect, high polymer solutions and high polymer properties, rubber, binders, ageing, etc.

Judging from the above, polymerization science has been greatly systematized and its organizational policy greatly clarified since the first conference in 1954 -- the second conference was held in 1959, and the third in 1961.

New work on ion polymerization is being carried out at such places as Peiping, Kirin, and Chekiang universities. For example, "Negative Ion Research on Ethylene Monomers-Alkali Metal Ketones To Be Used As Catalysts To Initiate Systematic Polymerization of Styrene presents the results of heating potassium or sodium and reacting it with benzophenone to form ketones which cause the directed polymerization of styrene.

In the field of branch polymers, several new views were presented with regard to cellulose, natural rubber, and acrylate resins. Much work had been done with rubber in the fields of ageing and theory, and many theories with practical application were presented by such units as the Peking Academy of Chemical Engineering, the Rubber Design Academy, and

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the South China College of Chemical Engineering. Many aspects of dynamics and of high polymer solid state reactions have been expanded. In "Critique on an Equation for the Dynamics of Polyester Reaction," the author maintained that the conclusions of T'ANG Ao-ching (0781/2407/1987) were worthy of criticism, and this prompted a discussion which far exceeded the time limit. Further, in the field of high polymer solution theory, new data was presented on molecular weight distribution and the light scattering properties of mixing solutions.

The Institute of Applied Chemistry, Chinese Academy of Sciences, presented six papers in the field of directed polymerization of butadiene, which discussed the soluble catalyst synthesis of cis-butadiene and the effect of different catalysts with certain additives. In border condensation polymerization, the Institute of Chemistry, Chinese Academy of Sciences, the Mukden Academy of Chemical Engineering, and other units expanded research on polyesters and polyamides, especially regarding the fact that the influence of catalysts and emulsifiers has a penetrating effect. In the area of organic silicon polymerization, ion exchange resins, and radiation effect, the Chinese Academy of Sciences, higher educational institutions, and institutes in production and industrial departments have expanded theoretical research and submitted many significant results.

The papers reflected the fact that radiant energy source, ultracentrifuge, infrared spectra, and other instruments have been broadly applied in research on high polymers.

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The conference reflected the fact that a great deal of the basic research in the area of polymer products that are related to the current national economy was done by the Chinese Academy of Sciences and higher educational institutions.

Also discussed at the conference were problems of polymer nomenclature and teaching materials. The polymer subsection of the chemistry section of the National Scientific and Technological Commission sought various views on a draft plan for basic research on polymers. (Peiping, Huashueh T'ung-pao [Chemistry Bulletin], No 1, Jan 63, p 63)

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NEW PUBLICATIONS AND BOOK REVIEWS

1. Books on Chinese Economic Fauna

[The following books on China's economic fauna have been or will be published as indicated in the source in parentheses at the end of each item.]

1. Chung-kuo Ching-chi Tung-wu Chih -- Shou-lei (China's Economic Fauna -- Beasts), compiled by Shou Chen-huang (1108/2182/7806); to be published by Science Press, Peiping, October 1963, price 7.20 yuan. (Peiping, Jen-min Jih-pao, 29 Jun 63, p 6)
2. Chung-kuo Ching-chi Tung-wu Shih -- Tan-shui Yu-lei (China's Economic Fauna -- Fresh Water Fish), compiled by WU Hsien-wen (0124/3759/2429); was published by Science Press, Peiping, January 1963, price 2.70 yuan. (Peiping, Ch'uan-kuo Hsin-shu-mu, No 6, 1963, p 8)
3. Chung-kuo Ching-chi Tung-wu Chih -- Hai-ch'an Yu-lei (China's Economic Fauna -- Ocean Fish), compiled by Institute of Oceanography, Chinese Academy of Sciences; published by Science Press, Peiping (Peiping, K'o-hsueh T'ung-pao, No 5, 1963, p 72)

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4. Chung-kuo Ching-chi Tung-wu Chih -- Huan-chieh (Tuo-mao-kang), Chi-p'i, Yuan-so Tung-wu (China's Economic Fauna -- Annulata (polychaeta), Echinoderms, Protocordate), compiled by CHANG Hsi (1728/3886) et al; published by Science Press, Peiping, August 1963, price 2.30 yuan. (Peiping, Jen-min Jih-pao, 21 Sep 63, p 6)

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2. Publications on China's Economic Insects

[The following books on China's economic insects have been or will be published as indicated in the source in parentheses at the end of each item.]

1. Chung-kuo Ching-chi K'un-ch'iuung Chih Ti-erh-ts'e Pan-ch'ih-mu Ch'un-k'o (China's Economic Insects -- Vol 2, Hemiptera, Pentatomidae), compiled by YANG Wei-i (2699/1919/5030); published by Science Press, Peiping, February 1963, price 2.20 yuan. (Peiping, Jen-min Jih-pao, 2 Apr 63, p 5)
2. Chung-kuo Ching-chi K'un-ch'iuung Shin Ti-erh-ts'e, Lin-ch'ih-mu, Yeh-o-k'o (I) (China's Economic Insects - Vol 3, Lepidoptera, Noctuidae (I)), compiled by CHU Hung-fu (2612/1738/1788) et al; published by Science Press, Peiping, May 1963, price 2.50 yuan. (Peiping, Jen-min Jih-pao, 5 Jun 63, p 6)
3. Chung-kuo Ching-chi K'un-ch'iuung Chih Ti-szu-ts'e, Ch'iao-ch'ih-mu, Ni-pu-hsing-ch'iuung-k'o (China's Economic Insects -- Vol 4, Coleoptera, Tenebrionidae), compiled by CHAO Yang-ch'ang (6392/7402/2490); published by Science Press, Peiping, June 1963, price 1.00 yuan. (Peiping, Jen-min Jih-pao, 9 Jul 63, p 6)

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4. Chung-kuo Ching-chi K'un-ch'iuung Chih, Ti-wu-ts'e, Ch'iao-ch'ih-mu, T'iao-ch'iuung-k'o (China's Economic Insects -- Vol 5, Coleoptera, Coccinellidae), compiled by LIU Ch'ung-tung (0491/1504/2639); to be published by Science Press, Peiping, in the last quarter of 1963, price 1.60 yuan. (Peiping, Jen-min Jih-pao, 22 Aug 63, p 6)
5. Chung-kuo Ching-chi K'un-ch'iuung Chih, Ti-ch'i-ts'e, Lin-ch'ih-mu, Yeh-o-k'o (San) (China's Economic Insects -- Vol 7 -- Lepidoptera, Noctuidae (3)), compiled by CHU Hung-fu (2612/1738/1788) et al; to be published by Science Press, Peiping, in the first quarter of 1964, price 1.20 yuan. (Peiping, Jen-min Jih-pao, 19 Oct 63, p 6)

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3. Publications on China's Flora

[The following books on China's flora have been or will be published as indicated in the source in parentheses at the end of each item.]

1. Chung-kuo Chin-wu Chih (Ti Shih-yi Chuan) So-ts'ao-k'o (China's Flora -- Vol 11 -- Cyperus Rotundus), compiled by T'ANG Chin (0781/6651) and CHU Ta-tsuan (3137/4099/4957); to be published by Science Press, Peiping, in last quarter of 1963 or first quarter of 1964, price -- deluxe edition 4.85 yuan, regular edition, 2.90 yuan. (Peiping, Jen-min Jih-pao, 14 Sep 63, p 6)

2. Chung-kuo Chih-wu Chih (Ti Liu-shih-pa Chuan) (China's Flora -- Vol 68), compiled by CHUNG Pu-ch'iu (6945/5943/3061); published by Science Press, August 1963, price 5.00 yuan. (Peiping, Jen-min Jih-pao, 21 Sep 63, p 6)

3. Lan-chou Chih-wu T'ung-chih (Lanchow Flora Encyclopedia), compiled by K'UNG Hsien-wu (1313/2009/2976); to be published by Kansu People's Publishing House in October 1962, price 3.00 yuan. (Peiping, Ch'uan-kuo Hsin-shu-mu, No 6, 1963, p 8)

(continued)

4. Ho-nan Ching-chi Chin-wu Chih (Honan Economic Flora), compiled by the Honan Economic Flora Editing Committee; published by the Honan Economic Flora Editing Committee; published by the Honan People's Publishing House in February 1963, price 3.80 yuan. (Peiping, Ch'uan-kuo Hsin-shu-mu, No 10, 1963, p 7)

5. Kuei-chou Ching-chi Chih-wu T'u-shuo (Ti-shih-ts'e), (Kweichow Economic Flora With Illustrations -- [(Vol 10)]), compiled by Kweichow Province Joint Research Sector on Wild Flora; published by Kweichow People's Publishing House in April 1962, price 1.30 yuan. (Peiping, Ch'uan-kuo Hsin-shu-mu, No 6, 1963, p 8)

6. Szu-ch'uan Yeh-sheng Ching-chi Chih-wu Chin (Shang-ts'e) (Szechwan Wild Economic Flora (First Volume)), compiled by Institute of Agrobiology, Szechwan Branch, Chinese Academy of Sciences; published by Szechwan People's Publishing House, October 1962, price 6.20 yuan. (Peiping, Ch'uan-kuo Hsin-shu-mu, No 7, 1963, p 5)

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7. Chung-kuo Hsien-lei Chih-wu Shu-chih (Shang-ts'e), (China's Moss-type Flora [First Volume], compiled by CH'EN Pang-chieh (7115/6721/2638); published by Science Press, Peiping, May 1963, price 3.30 yuan, (Peiping, Jen-min Jih-pao, 5 Jun 63, p 6)
8. Hua-tung Ho-pen-k'o Chih-wu Chih (East China Flora-Gramineae), compiled by CH'EN Shou-liang (7115/1343/5328) et al; published by Kiangsu People's Publishing House, December 1962, price 3.35 yuan. (Peiping, Ch'uan-kuo Hsin-shu-mu, No 5, 1963, p 13)
9. Chung-kuo Kuo-shu Chih (Ti-san-chuan) Li (China's Fruit Trees [Vol 3], Pears), compiled by Institute of Pomology, Chinese Academy of Agricultural Sciences; published by Shanghai Scientific and Technological Publishing House, price 4.80 yuan. (K'o-hsueh T'ung-pao, No 10, 1963, p 72)
10. Tung-pei Ching-chi Mu-ts'ai Chih (Economic Trees of the Northeast), compiled by HUANG Ta-chang (7806/6671/4545); to be published by Science Press, Peiping, in last quarter of 1963, price regular edition 2.30 yuan, deluxe edition 2.90 yuan. (Peiping, Jen-min Jih-pao, 22 Aug 63, p 6)

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4. Publications on China's Fish

[The following books on China's fish have been or will be published as indicated in the source in parentheses at the end of each item.]

1. Chung-kuo Li-k'o Yu-lei Chih (Ti-i-ts'e) (China's Carp Family of Fish [Vol 1]), compiled by WU Hsien-wen (0124/3759/2429); to be published by Shanghai Scientific and Technological Publishing House, December 1963, price 3.15 yuan. (Peiping, Jen-min Jih-pao, 21 Oct 63, p 4)
2. Tung-hai Yu-lei Chih (Fish of East China Sea), compiled by CHU Yuan-ting (2612/0337/7844), CHANG Ch'um-lin (1728/2504/7207), and CH'ENG Ch'ing-t'ai (2052/1987/3141); to be published by Science Press, Peiping, October 1963, price 7.70 yuan. (Peiping, Jen-min Jih-pao, 21 Sep 63, p 6)
3. Nan-hai Yu-lei Chih (Fish of South China Sea), compiled by Institute of Zoology, Chinese Academy of Sciences, Institute of Oceanography, Chinese Academy of Sciences, and Shanghai Fisheries College, published by Science Press. (Peiping, K'o-hsueh T'ung-pao, No 3, 1963, p 72)

(continued)

4. Chung-kuo Tan-shui Yu-lei (Yang-chih-hsueh), China's Fresh Water Fish [Culture], compiled by the China Committee for the Summation of Experiences in the Culture of Fresh Water Fish; published by the Science Press, Peiping, price 5.35 yuan. (Peiping, Jen-min Jih-pao, 16 Feb 63, p 6)

5. Publications on China's Fauna

[The following books on China's fauna have been or will be published as indicated in the source in parentheses at the end of each item.]

1. Chung-kuo Tung-wu T'u-p'u [Tien-hsing Tung-wu], (Fu-jen-hsing Tung-wu), (China's Fauna With Illustrations [Plathelminthesia], [Nemertinea]), compiled by CH'EN Hsin-t'ao (7115/1800/7118), et al; to be published by Shantung People's Publishing House, December 1963, price 0.75 yuan. (Peiping, Ch'uan-kuo Hsin-shu-mu, No 6, 1963, p 8)

2. Chung-kuo Tung-wu T'u-p'u [Niao-lei: Ti-san-ts'e, Ch'iao-hsing-mu], (China's Fauna With Illustrations [Birds: Vol 3, Passeriformes]), compiled by CHE Tso-hsin (6774/0155/2450) et al; publishing by Science Press, Peiping, February 1963, price 0.170 yuan. (Peiping, Ch'uan-kuo Hsin-shu-mu, No 7, 1963, p 5)

3. Chung-kuo Te K'en-shih Shou-lei (China's K'en-shih Animals), compiled by SUN Ai-lin (1327/5335/ 1947/3876); to be published by Science Press, Peiping, October 1963, price 2.10 yuan. (Peiping, Jen-min Jih-pao, 29 Jun 63, p 6)

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4. Chung-kuo Niao-lei Hsi-t'ung Chien-so (An Examination of China's Bird Classification), compiled by CHENG Tso-hsin (6774/0155/2450); to be published by Science Press, Peiping, in the last quarter of 1963 or the first quarter of 1964, price 2.10 yuan. (Peiping, Jen-min Jih-pao, 14 Sep 63, p 6)

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BIOGRAPHIC INFORMATION

CHANG Chun-fan (1728/0193/5400), Biology Department, Szeshwan University
CHENG Tso-hsin (6774/0155/2450), Institute of Zoology, Chinese Academy of Sciences

Coauthors of an article, "A New Generic Record of the Chinese Avifauna-Callene Bluth (Muscicaridae: Turdinae), " received for publication on 14 February 1963. (Peiping, Tung-wu Hsueh-pao [Acta Zoologica Sinica], Vol 15, No 2, Jun 63, p 339)

CH'ANG Wang-hao, author of article, "On Semi-Simple Classes of Groups," in Russian. (Moscow, Sibirskiy Matematicheskiy Zhurnal, Vol 3, No 6, Nov Dec 62, pp 943-949)

CHOU Lsiu-chung (p719/4423/0022)
HSIEN Chi'ing-lan (6200/1987/5695)
CHANG Seng-yu (1728/0300/0147)

All of the Institute of Elemental Organic Chemistry, Chemistry, Chemistry Department, Nan-k'ai University; coauthors of an article, "Silicon Trimethyl Ethylene Diamine Compounds." (Peiping, K'o-hsueh T'ung-pao, No 9, Sep 63, pp 63-64)

CHU Chih-wei (2612/1807/0251)
HSIAO Kuang-yen (51e5/0342/8827)

Coauthors of an article, "Duplex Research on Electron Acid Catalysts". (Peiping, K'o-hsueh T'ung-pao, No 9, Sep 63, pp 52-55)

LOU Hsueh-yu (0196/1331/3558)
CHANG Sh8 (1203/1859)
CH'EN Ch'ang-tu (7115/2490/4648)
HU Chih-chih (5170/1709/0037)

All of Institute of Botany, Chinese Academy of Sciences; coauthors of an article, "Some Ideas on the Future Development of Agriculture, Forestry, Animal Husbandry, Subsidiary Occupations, and Fisheries in the Various Natural Divisions of China." (Peiping, K'o-hsueh T'ung-pao, No 9, Sep 63, pp 8-26)

HU Chih-te (5170/0037/1795), Chemistry Department, Lanchow University; author of an article, "The Application of Thin Layer Chromatography in Inorganic Analysis." (Peiping, K'o-hsueh T'ung-pao, No 9, Sep 63, p 63)

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HUANG Chu-chien (7806/5476/1017), Institute of Zoology, Chinese Academy of Sciences; author of an article, "A New Subfamily Record (Acrochordinse) of the Chinese Sergentes - Acrochordus Granulatus Gray," received for publication on 29 December 1962. (Peiping, Tung-wu Hsueh-pao [Acta Zoologica Sinica], Vol 15, No 2, Jun 63, p 336)

HUANG Pen-hung (7806/2609/1347), Institute of Geology, Ministry of Geology; author of an article, "Ages of Coal-Bearing Strata of the Mesozoic Era in the Northern and Eastern Parts of Manchuria." (Peiping, K'o-hsueh T'ung-pao, No 9, Sep 63, pp 69-71)

LIU Chung-wen, Agrophysical Scientific-Research Institute, Moscow; coauthor with I. F. Zubareve of an article, "Scintillators for Beta-Counting on the Basis of Polustytene," in Russian; received for publication on 30 May 1962. (Moscow, Priboiy i Tekhnika Eksperimenta, No 5, Sep Oct 63, pp 78-81)

LIU Tso-mo (0491/0155/2875), Biology Department, Shansi University; author of an article, "A New Record of an Avian Family to the Chinese Fauna - Stercorariidae," received for publication on 4 February 1963. The author expresses thanks to Prof CHENG Tso-hsin (674/0155/2450) for offering advice. (Peiping, Tung-wu Hsueh-pao [Acta Zoologica Sinica], Vol 15, No 2, Jun 63, p 340)

MA Shih-chun (7456/0013/7486), Institute of Zoology, Chinese Academy of Sciences; author of an article, "The Physiological and Ecological Background of the Migration pao, No 9, Sep 63, pp 65 to 68)

P'ENG Jui-wu (1756/3843/0124)
CH'EN Tzu-yao (7115/5261/1202)

Both of the Institute of Metallurgy, Chinese Academy of Sciences; coauthors of an article "Electrochemical Research on Copper and Titanium Solutions in Molten Salt". (Peiping, K'o-hsueh T'ung-pao, No 9, Sep 63, pp 56-59)

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T'ENG Chi-wen, Institute of Physics of the Earth; author of article, "Dynamic Properties of Seismic Waves in the Presence of Faults (According to Simulation Data)," in Russian; received for publication on 21 March 1963. (Moscow, Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, No 11, Nov 63, pp 1631-1643)

WANG Chao-ling, author of an article, "On the Conversion of Routh's Theorem," in Russian; received for publication on 26 April 1963. (Moscow, Akademiya Nauk SSSR, Prikladnaya Matematika i Mekhanika, Vol 27, No 5, Sep Oct 63)

WANG Chih-kang, Leningrad State University; coauthor with A. A. Kisel of article, "Theoretical Consideration of Electron Transition Energy, Corresponding to Beta-Band," in Russian; received for publication on 12 June 1963. (Moscow-Leningrad, Akademiya Nauk SSSR, Fizika Tverdogo Tela, Vol 5, No 11, Nov 63, pp 3231-3237)

WANG Lin-yao (3769/2651/3852), Institute of Zoology, Chinese Academy of Sciences; author of an article, "An Exoparasitic Blowfly Propocalliphora Azurea From Nestlings of the Tree Sparrows," received for publication on 2 January 1963. (Peiping, Tung-wu Hsueh-pao [Acta Zoologica Sinica], Vol 15, No 2, Jun 63, p 337)

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CHANG Ch'ang-shao (1728/2490/4801); author of an article, "Rational Use of Medicine To Avoid Waste." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 4, Jul 63, pp 145-146) (CONFIDENTIAL)

CHANG Chia-ch'uan (1728/1367/6898), Pharmacology Teaching and Research Section, Shanghai First Medical College; author of an article, "Pharmacological Use of Tranquilizers and Their Clinical Application." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 4, Jul 63, pp 163-170) (CONFIDENTIAL)

CHANG Hsiu-chen (1728/0208/4176)

CHAO Po-ying (6392/0130/5391)

Both of Drug Inspection Station, Tsingtao Municipal Health Department; coauthors of an article, "The Effect of Drug Processing on the Ether Solution of Biological Alkaloids in Betelnuts." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 4, Jul 63, p 181) (CONFIDENTIAL)

CHIANG Hsi-chi (3068/6932/1015), Laboratory of Chinese Traditional Medicine, Institute of Chinese Traditional Veterinary Medicine, Chinese Academy of Agricultural Sciences, Lanchow; author of an article, "Variations in the Berberic Content of the Roots of Berberis Vernae Schneid at Different Stages of Growth." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin] Vol 9, No 5, Aug 63, pp 214-216) (CONFIDENTIAL)

CH'LEN I (6929/3354)

LIU Hsun-i (0491/0534/3976)

TING Yun-fang (0002/5366/5364)

CHIANG Hsien-yu (1203/0341/0147)

All of Department of Medicine, Kuang-tz'u Hospital under Shanghai Second Medical College; coauthors of an article, "Research on the Use of Quaternary Ammonium Salt Disinfectants." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 5, Aug 63, pp 201-207) (CONFIDENTIAL)

CHIN Yu-yu (6855/2589/6276), Pharmacology Teaching and Research Section, Peking Second Medical College; author of an article, "A Long Lasting Sulfa Drug-Sulfamethoxyryridazinum." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin] Vol 9, No 4, Jul 63, pp 159-163) (CONFIDENTIAL)

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CHU Wen-chun (2612/2429/7486), Chungking Municipal Drug Inspection Station; author of an article, "Semiconductor Calorimeter." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 4, Jul 63, pp 182-183) (CONFIDENTIAL)

FENG Yang-hua (7458/0111/5478), Pharmacy Section, Wuhan Fourth Municipal Hospital; author of an article, "Therapy by Means of Combinations of Antibiotics and Its Dangers." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 4, Jul 63, pp 146-148) (CONFIDENTIAL)

LIU T'ieh-ch'eng (0491/6993/1004), Institute of Materia Medica, Chinese Academy of Medical Sciences; author of an article, "Introduction and Testing of Erysimum Canescens Roth. In the Peiping Area." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 5, Aug 63, pp 209-211) (CONFIDENTIAL)

TS'AI Yumin (5591/3768/3787)

LIU Ch'ung-ming (0491/1504/6900)

YAO Ch'ung-shun (1202/1594/5293)

FENG Shih-min (7458/1102/2404)

WANG Chu-yen (3769/4554/6056)

All of Northeast Pharmacy College; coauthors of an article, "Substitutes for Cocoa Bean Oil, Physical and Chemical Constants of Vegetable Tallow and Research on Its Stimulative Effects on the Mucous Membrane." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 4, Jul 63, pp 171-174) (CONFIDENTIAL)

WANG Chen-kang (3769/2182/4854), Pharmacology Teaching and Research Section, Chinese Medical College

CHU T'ien-hsi (2612/1131/6932), Institute of Materia Medica, Chinese Academy of Medical Sciences, Peiping

Coauthors of an article, "The Evaluation of Methods for Determining the Average Lethal Dose of Medicines." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 4, Jul 63, pp 148-154) (CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

WANG Te-ch'eng (3769/1795/3413), Shanghai Consolidated Chemical and Drug Manufacturing Plant; author of an article, "Research on the Effects of the Condition of the Cyalo-choroguanidine Synthesis Reaction on Its Quality." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 4, Jul 63, pp 175-179) (CONFIDENTIAL)

WANG Te-ch'eng (3769/1795/3413), Shanghai Consolidated Chemical and Drug Manufacturing Plant; author of an article, "Synthesis of Nitrofuration." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 5, Aug 63, pp 216-219) (CONFIDENTIAL)

YUAN Wei-chin (591e/0251/2516)

NI Shu-ying (0242/3219/5391)

both of Pharmacy, Peking Chi-shui-t'an (4480/3055/3389) Hospital; coauthors of an article, "Introducing Novobiocin, Vansomycin, nad Kanamycin." (Peiping, Yao-hsueh T'ung-pao [Pharmacology Bulletin], Vol 9, No 5, Aug 63, pp 196-200) (CONFIDENTIAL)

C-O-N-F-I-D-E-N-T-I-A-L

LIST OF ACTAS SINICA

The following Actas Sinica (Nsueh-pao) are being published in Peiping.

	<u>Title</u>	<u>Periodicity</u>
1.	Ch'i-shiang Hsueh-pao (Acta Meteorologica Sinica)	Quarterly
2.	Chieh-p'ou Hsueh-pao (Acta anatomica Sinica)	Quarterly
3.	Chih-wu Hsueh-pao (Acta Botanica Sinica)	Quarterly
4.	Chih-wu Feng-lai Hsueh-pao (Acta Phytotaxonomica Sinica)	Quarterly
5.	Chih-wu Ping-li Hsueh-pao (Acta Phytopathologica Sinica)	Quarterly
6.	Chin-shu Hsueh-pao (Acta Metallurgica Sinica)	Quarterly
7.	Ch'u-mu Shou-i Hsueh-pao (Acta Veterinaria et Zootechnica Sinica)	Quarterly
8.	Hai-yang yu Hu-chao (Oceanologia et Limnologia Sinica)	Quarterly
9.	Hsin-li Hsueh-pao (Acta Psychologica Sinica)	Quarterly
10.	Hua-hsueh Hsueh-pao (Acta Chimica Sinica)	Bimonthly
11.	Ku-sheng-wu Hsueh-pao (Acta Palaeontologica Sinica)	Quarterly
12.	K'un-ch'ung Hsueh-pao (Acta Entomologica Sinica)	Bimonthly
13.	Li-hsueh Hsueh-pao (Acta Mechanica Sinica)	Quarterly
14.	Nung-yeh Chi-hsieh Hsueh-pao (Acta Agro-mechanica Sinica)	Quarterly
15.	Sheng-li Hsueh-pao (Acta Physiologica Sinica)	Quarterly
16.	Sheng-wu Hua-hsueh yu Sheng-wu Wu-li Hsueh-pao (Acta Biochimica et Biophysica Sinica)	Quarterly

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17.	Shih-yen Sheng-wu-hsueh Hsueh-pao (Acta Biologiae Experimentalis Sinica)	Semiannual
18.	Su-hsueh Hsueh-pao (Acta Mathematica Sinica)	Quarterly
19.	Shui-sheng Sheng-wu-hsueh Chi-k'an (Acta Hydro-Biologica Sinica)	Semiannual
20.	Ti-chih Shueh-pao (Acta Geologica Sinica)	Quarterly
21.	Ti-ch'iu Wu-li Shueh-pao (Acta Geophysica Sinica)	Semiannual
22.	Ti-li Hsueh-pao (Acta Geographica Sinica)	Quarterly
23.	Tsin-tzu Hsueh-pao (Acta Electronica Sinica)	Quarterly
24.	T'ien-wen Hsueh-pao (Acta Astronomica Sinica)	Semiannual
25.	T'ien-wen Hsueh-pao Fu-k'an (Acta Astronomica Sinica Supplementum)	Semiannual
26.	Ts'e-hui Hsueh-pao (Acta Geodetica et Cartographica Sinica)	Quarterly
27.	T'u-jiang Hsueh-pao (Acta Pedologica Sinica)	Quarterly
28.	Tung-wu Hsueh-pao (Acta Zoologica Sinica)	Quarterly
29.	Tzu-tung-hua Hsueh-pao (Acta Automatica Sinica)	Quarterly
30.	Wei-sheng-wu Hsueh-pao (Acta Microbiologica Sinica)	Quarterly
31.	Wu-li Hsueh-pao (Acta Physica Sinica)	Monthly
32.	Yao-hsueh Hsueh-pao (Acta Pharmaceutica Sinica)	Monthly
33.	Chi-hsieh Kung-ch'eng Hsueh-pao (Chinese Journal of Mechanical Engineering)	Quarterly
34.	Chih-wu Pao-hu Hsueh-pao (Chinese Journal of Plant Protection)	Quarterly

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|-----|---|-----------|
| 35. | Chien-chu Hsueh-pao (Journal of Architecture) | Monthly |
| 36. | Kuei-suan-yen Hsueh-pao (Chinese Journal of Silicate) | Quarterly |
| 37. | Shui-li Hsueh-pao (Chinese Journal of Hydraulic Engineering) | Bimonthly |
| 39. | T'u-mu King-ch'eng Hsueh-pao (Chinese Journal of Civil Engineering) | Bimonthly |

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UNCLASSIFIED
Central Intelligence Agency



Washington, D. C. 20505

7 September 2004

Ms. Roberta Schoen
Deputy Director for Operations
Defense Technical Information Center
7725 John J. Kingman Road
Suite 0944
Ft. Belvoir, VA 22060

Dear Ms. Schoen:

In February of this year, DTIC provided the CIA Declassification Center with a referral list of CIA documents held in the DTIC library. This referral was a follow on to the list of National Intelligence Surveys provided earlier in the year.

We have completed a declassification review of the "Non-NIS" referral list and include the results of that review as Enclosure 1. Of the 220 documents identified in our declassification database, only three are classified. These three are in the Release in Part category and may be released to the public once specified portions of the documents are removed. Sanitization instructions for these documents are included with Enclosure 1.

In addition to the documents addressed in Enclosure 1, 14 other documents were unable to be identified. DTIC then provided the CDC with hard copies of these documents in April 2004 for declassification review. The results of this review are provided as Enclosure 2.

We at CIA greatly appreciate your cooperation in this matter. Should you have any questions concerning this letter and for coordination of any further developments, please contact Donald Black of this office at (703) 613-1415.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sergio N. Alcivar".

Sergio N. Alcivar
Chief, CIA Declassification Center,
Declassification Review and Referral
Branch

Enclosures:

1. Declassification Review of CIA Documents at DTIC (with sanitization instructions for 3 documents)
2. Declassification Status of CIA Documents (hard copy) Referred by DTIC (with review processing sheets for each document)

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Processing of OGA-Held CIA Documents

The following CIA documents located at DTIC were reviewed by CIA and declassification guidance has been provided.

OGA Doc ID	Job Num	Box	Fldr	Doc	Doc ID	Document Title	Pub Date	Pages	Decision	Proc Date
AD0343932	78-03117A	213	1	18	5117	Scientific Information Report Chinese Science (34)	10/22/1963	89	Approved For Release	3/29/2004
AD0344702	78-03117A	214	1	21	5149	Scientific Information Report Chinese Science (35)	11/4/1963	133	Approved For Release	3/29/2004
AD0344965	78-03117A	215	1	4	5163	Scientific Information Report Chinese Science (36)	11/7/1963	133	Approved For Release	3/29/2004
AD0345229	78-03117A	215	1	23	5182	Scientific Information Report Chinese Science (37)	11/18/1963	179	Approved For Release	3/29/2004
AD0345750	78-03117A	216	1	20	5209	Scientific Information Report Chinese Science (38)	12/11/1963	174	Approved For Release	3/29/2004
AD0344419	78-03117A	217	1	20	5241	Scientific Information Report Chinese Science (39)	12/27/1963	75	Approved For Release	3/29/2004
AD0346493	78-03117A	218	1	21	5277	Scientific Information Report Chinese Science (40)	1/10/1964	115	Approved For Release	3/29/2004
AD0346725	78-03117A	219	1	27	5320	Scientific Information Report Chinese Science (41)	1/27/1964	78	Approved For Release	3/29/2004
AD0347051	78-03117A	220	1	25	5359	Scientific Information Report Chinese Science (42)	2/6/1964	78	Approved For Release	3/29/2004
AD0347849	78-03117A	221	1	39	5407	Scientific Information Report Chinese Science (43)	3/2/1964	174	Approved For Release	3/29/2004
AD0347929	78-03117A	222	1	25	5438	Scientific Information Report Chinese Science (44)	3/5/1964	104	Approved For Release	3/29/2004
AD0348352	78-03117A	223	1	20	5479	Scientific Information Report Chinese Science (45)	3/20/1964	117	Approved For Release	3/29/2004
AD0349491	78-03117A	225	1	18	5560	Scientific Information Report Chinese Science (46)	4/24/1964	118	Approved For Release	3/29/2004
AD0349657	78-03117A	225	1	34	5581	Scientific Information Report Chinese Science (47)	5/4/1964	98	Approved For Release	3/29/2004
AD0332751	78-03117A	183	1	29	3940	Scientific Information Report Electronics And Engineering (22)	10/19/1962	68	Approved For Release	3/29/2004
AD0333146	78-03117A	186	1	20	4041	Scientific Information Report Electronics And Engineering (23)	11/23/1962	73	Approved For Release	3/29/2004
AD0334103	78-03117A	188	1	37	4136	Scientific Information Report Electronics And Engineering (24)	12/20/1962	62	Approved For Release	3/29/2004
AD0334236	78-03117A	190	1	40	4217	Scientific Information Report Electronics And Engineering (25)	1/22/1963	48	Approved For Release	3/29/2004
AD0334769	78-03117A	193	1	39	4339	Scientific Information Report Electronics And Engineering (26)	2/28/1963	68	Approved For Release	3/29/2004
AD0335480	78-03117A	196	1	17	4436	Scientific Information Report Electronics And Engineering (27)	3/21/1963	95	Approved For Release	3/29/2004
AD0336306	78-03117A	199	1	2	4538	Scientific Information Report Electronics And Engineering (28)	4/25/1963	69	Approved For Release	3/29/2004
AD0332433	78-03117A	183	1	35	3946	Scientific Information Report Organization And Administration Of Soviet Science (5)	10/22/1962	60	Approved For Release	3/29/2004